IS WORLD TRADE LAW A BARRIER TO SAVING OUR CLIMATE?

questions and answers
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“Further trade liberalisation can wait another round, fighting climate change cannot. Our planet, humanity cannot afford it.”
foreword friends of the earth europe

Is the WTO blocking progress in the fight against climate change? This was the question at the origin of this legal analysis. Friends of the Earth members and activists, in Europe and around the world, have often been confronted with policy-makers waving the “WTO red flag” when urging them to take strong initiatives for climate mitigation and adaptation. Politicians often invoke the WTO as a powerful supranational institution that prevents them from taking any “market-unfriendly” measures. If they would, they say, their country would risk facing a legal challenge before the WTO’s strong dispute settlement body; this in turn would affect their image as a faithful observer of multilateral rules; it would hurt their carefully woven diplomatic and economic relationships with partner countries; and weaken their position in international trade negotiations. For many policy-makers, however, using the WTO as a scaremonger is an easy way to defend the status quo and block progress on more stringent environmental policy-making.

With this legal analysis, we intend to correct this distorted picture of WTO rules, often brandished by those who are close to the vested interests of the dominant ‘free trade’ model and the fossil fuel based economy. In reality, the analysis demonstrates that WTO rules provide adequate flexibility for national policy-makers to take the bold and necessary measures to meet the climate change challenge.

This is not to say that the WTO does not have its own problems. The immanent logic of the WTO, as we all know, is trade expansion, not trade limitation. As they are pushing for more trade the WTO agreements and negotiations are inherently working against the goal of reducing GHG emissions. The whole idea of the DDA being a “green trade round”, as depicted by Pascal Lamy and the European Commission, is therefore of unbearable indecency. In the context of the global crises and the legitimacy crisis of the WTO, one can interpret this current greenwashing trend as a desperate attempt to increase popular buy-in towards an institution that is struggling to find its raison d’être and to safeguard a policy agenda – the “Washington Consensus” – which has lost all credibility. ‘Greening the WTO’ is not an agenda that Friends of the Earth supports. We do not want the authority of a body like the WTO – the world’s most powerful promoter, defender and engine of unfair ‘free trade’ – to be expanded with a new climate mandate.

Talking about “mutual supportiveness” between trade and environment policies is no longer enough. What is needed is to turn around the logic of “WTO-compliance”. Instead, we should enshrine the concept of “Kyoto-compliance” in global governance structures and international rule making. In the face of the urgency of climate change, the order of priorities should be reversed. Further trade liberalisation can wait another round, fighting climate change cannot. Our planet, humanity, cannot afford it.

With this paper and its simple question and answer format, we hope to dispel some myths and shed some light on the reality of world trade rules in their relation with climate-friendly measures. In the end, we hope to encourage policy-makers in Europe and around the world not to see the WTO as an insurmountable barrier and not to use it as an excuse against strong action on climate change!

Charly Poppe
Coordinator, Trade Campaign
Friends of the Earth Europe

foreword center for international environmental law

The Center for International Environmental Law (CIEL) is pleased to collaborate with Friends of the Earth-Europe to produce this legal analysis. It responds to concerns that have arisen in the course of consideration of national efforts to address the problem of climate change — that such measures could run afoul of international trade rules. Often the concerns are only vaguely expressed and seem designed to end rather than foster further consideration of such measures.

The analysis that follows demonstrates that the WTO agreements can and have been interpreted in a way that allows ample flexibility for national measures designed to address climate change — particularly if they are adopted pursuant to a global climate treaty. Recent developments in our understanding of the global climate system demonstrate that climate change is occurring more rapidly that predicted even five years ago. The need for nations — particularly developed countries — to take aggressive and timely action to combat climate change is immediate and dire. While the political will necessary to take appropriate action may be hard to come by, this paper clearly demonstrates that WTO rules do not stand in the way of properly designed climate policies.

Stephen Porter
Director, Climate Change Program
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A large variety of climate measures are needed to decarbonise the global economy and mitigate climate change. Industries need to change their way of production and be more energy efficient. Consumers need to switch to using more energy efficient computers, refrigerators, light bulbs, etc. Transport modes have to change and cars have to become more fuel efficient in order to curb greenhouse gas (GHG) emissions. Renewable energies and zero emission technologies need to be boosted to be able to satisfy energy demand in the future and become commercially viable.

These types of climate measures are contemplated under the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol. With 192 and 186 Parties respectively, the UNFCCC entered into force in 1994 and the Kyoto Protocol in 2005. Under those agreements, all countries are generally required to take measures to mitigate climate change —taking into account differentiated responsibilities, development concerns, and national circumstances — with the developed countries having more specific obligations with respect to the reduction of GHG emissions.
Most countries have already envisaged or adopted climate measures, including: product standard setting, product labelling, fuel efficiency standards, and subsidies, among others. These national policies and measures aim at influencing economic behaviour of industries, manufacturers and consumers. Many of them will fall under the scope of international trade rules of the World Trade Organization (WTO).

The WTO is an inter-governmental organization with 153 Member States and administers a comprehensive set of international agreements covering a wide array of aspects relating to international trade. As Members to the WTO, States accept to be bound by the rules set forth in these agreements. The WTO agreements do not explicitly deal with climate policies, but might nevertheless come into play as soon as national policies influence economic behaviour of economic actors like manufacturers, industry sectors or consumers in a way that affects trade flows.

WTO law is significant in part because it provides for its own mechanism to settle disputes related to rights and obligations under the WTO agreements. If a WTO Member believes that a measure of another WTO Member is inconsistent with one or more of the WTO disciplines, the Member can challenge that measure in an institutional dispute settlement system that produces legally binding rulings.

Still, a measure – even if potentially not WTO-consistent – can go unchallenged. Some WTO measures might simply be not harmful enough to the interests of another Member to be challenged. Other Members might weigh carefully whether they would like to challenge a democratically adopted environmental or health measure or pursue other options that are less harmful to political and diplomatic relations.

Moreover, WTO rules leave space for arguing in favour of national climate measures and provide for exceptions to pursue other societal values than trade. The jurisprudence of the WTO panels and Appellate Body indicate that WTO rules allow for a certain degree of policy space for national decision-makers to adopt environmental measures. Thus, depending on how they are designed and applied, climate measures have a good chance to be found WTO-consistent. The present “Questions and Answers” provide an overview of the various climate-related measures and policies that fall under the scope of the WTO and offers an initial assessment of their WTO-compatibility.
Climate-related Labels and Standards – How Do They Work?

Climate-related Labelling Schemes

1. What is the contribution of labelling schemes to GHG emissions savings?

Product labelling has been recognized as an effective policy tool to address situations of so-called “information asymmetry”, where a consumer does not receive all the information that is necessary to make a product choice according to his or her preferences. The energy used, for example, by computers, refrigerators, light bulbs, or any sort of electric appliances is not a visible characteristic of the product that the consumer can detect without additional information. Limiting one’s energy consumption by using more efficient products, however, could very well be a consumer preference, in order to prevent climate change from additional greenhouse gas (GHG) emissions or to save money. Several studies on household energy consumption in industrialized countries point to significant emissions savings that result from switching to more efficient products. Purchasing energy efficient products therefore clearly reduces a consumer’s carbon footprint. Since the cost of energy consumed over the lifetime of a product is of similar or even greater magnitude than the cost of buying the product in the first place, it is also a cost-effective decision for consumers to choose a product based on its efficiency. Therefore, energy labels displaying the energy efficiency of a product can and do help consumers to make climate-conscious and cost-efficient purchasing decisions.
Since energy labels promote the purchase of energy efficient products, they induce manufacturers to respond to the demand and develop more efficient products, gradually driving inefficient, competing products out of the market.

In addition, a product’s impact on the climate is not limited to the energy consumed during its end-use. The amount of GHG emitted during processing or production of a product is often substantial. Some labelling schemes therefore aim to calculate the product’s carbon footprint consisting of the total amount of GHG (not just gaseous CO₂) emitted over the full life cycle of a product or service. The life-cycle analysis of a product’s GHG emissions, from its production or processing, to its transportation, to its intended use, and ending with its disposal as waste, quantifies the carbon footprint of a given product. While it is laudable that the climate impacts of all consumer products come under scrutiny, there is no consensus on accepted methodologies for measuring the carbon footprint of products, and thus current carbon footprint labels might provide consumers with limited and at times unreliable information. Moreover, a carbon footprint approach ignores other environmental and ethical aspects of the production chain. Transparency of the analysis is therefore key to scrutinizing the true value of a carbon footprint label.

When is a complete life-cycle analysis necessary - the example of biofuels?

For environmental, energy security and politico-economic reasons, many governments are promoting the use of biofuels. Both the European Union (EU) and the United States (US), for example, are adopting mandatory standards and targets for the fuel mix used in the transportation sector. However, a wide range of actors are raising concerns about biofuels targets for environmental, social, and economic reasons. Though one of the main putative
reasons to support and promote biofuels is their potential to reduce GHG emissions, recent studies have shown that, in some cases, biofuels over their life-cycle lead to increases, rather than decreases, in GHG emissions. Moreover, biofuel production also raises concerns over other environmental and social harms, such as potential impacts on land use, water resources, biodiversity, and food security. It is therefore crucial that every aspect of the life-cycle of biofuels be considered, including the amount of fossil fuels consumed during the cultivation of crops, the manufacture of fertilizers, fuel processing and distribution. A holistic life-cycle analysis of the carbon balance should also take into consideration the GHG emissions resulting from direct and indirect land use changes as land is converted to biofuel crop production.

The current Climate Package of the EU, for instance, includes standards based on the processing and production of biofuels. The use of biofuels may only be accounted for meeting GHG reduction and renewable energy targets, if the fuels achieve life-cycle GHG emissions savings of 35%, and do not make use of raw materials cultivated from land with high biodiversity or high carbon stock. While being progressive on the surface, these requirements remain weak from an environmental and sustainability perspective, since indirect land use changes are not considered and the legislation provides for various loopholes. Nevertheless, the legislation serves as an example of recent attempts by governments to adopt standards based on Life Cycle Analyses.
Labelling schemes can be designed in various ways. One way to distinguish labelling schemes is to differentiate between endorsement and informational labels. Endorsement labels endorse a particular feature of the product performance, like the Energy Star label that marks products meeting high energy-efficiency performance standards. Information labels, on the other hand, display information on the product’s performance. In order to help consumers understand the information displayed, most information labels utilize a comparison of competing products (e.g., the energy efficiency of product A versus B). Some countries, such as Australia, Thailand, South Korea, and the EU, have opted for grouping the energy efficiency performance levels into categories. The label indicates the category the given product would qualify for in comparison to all other categories displayed as a ranking, for instance from class “A” or “A+” to “G”. Other states, for instance the United States (US) and Canada, have adopted labels that indicate a product’s energy efficiency on a continuous scale ranging from the most to the least efficient without grouping them into categories.

Another way to distinguish labels is on the basis of their voluntary or mandatory character. Under a mandatory labelling scheme, all the products of a given category are required by law to be labelled. In contrast, under a voluntary labelling scheme, manufacturers or retailers are free to label or not to label. While endorsement labels are necessarily of a voluntary nature, information labels can be either voluntary or mandatory. The EU Energy Label is an example of a mandatory information label since it requires light bulbs, cars, and a range of electrical appliances, including refrigerators, stoves and washing machines, to carry the label displaying their respective energy performance.

Labelling schemes can be sponsored both by private parties and governments. In the past, governments have already been quite active in the field of adopting labelling schemes relating to the energy performance of products. Currently, at least 61 countries representing 80% of the world’s population are implementing such measures for at least one product, while increasingly broadening the portfolio of covered energy-consuming products. Partly in reaction to climate change awareness, governments are also developing labelling schemes that are based on a life-cycle analysis of the product, which, among other factors, looks at the production method used for the product.

However, the private sector and NGOs have been far more active in the field of labelling that draws upon the manner in which products are made and natural resources are extracted, grown, or harvested. Lacking formal governmental support, such privately initiated and administered labelling schemes can only be voluntary in nature. Nevertheless, private sector sponsored labels like the Forest Stewardship Council label for forestry products have found widespread use.

### Categories of labelling schemes

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<tr>
<th>Voluntary</th>
<th>Mandatory</th>
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<tr>
<td>Private Sector Sponsored</td>
<td>Only Government Initiated</td>
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<td>Government Sponsored</td>
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#### Endorsement Labels
- Marking preferable performance (e.g., energy efficiency) / preferable characteristics of the production method (or other aspects of the life cycle) of certain products of a given category

#### Information Labels
- Displaying information on product performance (e.g., energy efficiency) / characteristics of the production method (or other aspects of the life cycle) of certain products of a given category (usually in comparison to performance / characteristics of competing products)
Climate-related Standards

4. What are the differences between labelling and “minimum standards”?

While labels induce the behaviour of consumers by highlighting certain aspects about the product’s performance or characteristics, “mandatory minimum standards” influence the choice of consumers by making only certain products available to them. “Mandatory minimum standards” require that a product or process fulfils certain characteristics in order to sell the relevant product. The use of minimum standards is wide-spread and includes energy-saving policies. For example, given the enormous savings achievable through the use of energy-efficient lighting, it is not surprising that almost all industrialized countries and many developing countries are currently phasing-out inefficient incandescent light bulbs and setting minimum efficiency standards for lighting. Under a “minimum standard”, all the lighting products available to the consumer would have to meet the specified efficiency level, while a label would simply promote the purchase of the most efficient lighting products. Although they are more commonly used in relation to a product’s energy performance, governments can also develop minimum standards for production methods and processes.

Labelling schemes can also apply “minimum standards”. In order to benefit from a label, like the Energy Star label that endorses the particular energy efficiency performance, a product needs to meet a certain minimum standard. The same holds true for information labels that group products into categories, like the EU Energy Label. To be classified into a given category, the performance of the product needs to reach a specified level. The main difference between the standards incorporated in labelling schemes and mandatory minimum requirements is that only the latter are mandatory in the sense that they exclude products not meeting the standard from the market.

5. What is the contribution of “mandatory minimum standards” to GHG emissions savings?

The setting of “mandatory minimum standards” can provide a powerful tool for governments to achieve large GHG emissions savings. One recent study estimated that if all electrical appliances operating in industrialized countries from 2005 onwards met the highest efficiency standards, some 322 million tonnes of CO₂ emissions would be saved by 2010. Since, under a mandatory minimum standard, products not meeting the required performance levels may not be sold anymore, consumers will gradually replace inefficient products with more efficient ones. Thus, mandatory minimum standards have a particularly high potential to achieve significant, cost-effective energy savings and related GHG emission reductions. While governments in the past often relied on voluntary pledges from industries to achieve minimum energy efficiency levels for their products, now governments are generally tending to shift to mandatory standards, because compliance rates with voluntary standards were often insufficient.

6. Who sponsors and administers “minimum standards”?

Mandatory “minimum standards” take the form of legally binding laws or decrees adopted by parliaments and governments. Compliance with these standards is supervised by government bodies.

WTO Law and Climate-related Labelling Schemes and Standards

7. What are the trade effects of climate labelling and minimum standards?

The magnitude of the trade effects caused by eco-labels will depend on their design. At one end of the spectrum certain mandatory minimum requirements effectively ban from the market those products that do not comply with the relevant standard(s). At the other end of the spectrum are voluntary endorsement labels, which are not compelling in a legal sense. Still, wide-spread use of certain voluntary schemes can have an effect similar to a minimum standard because retailers and consumers may inhibit the successful commercialization of non-labelled products. Both standards and labelling schemes require the producer to adapt its product to the minimum standard or the standard reflected in the respective label. Such adaptation may cause particular problems to small producers and producers from developing countries, especially with the proliferation of various standards, testing procedures, and certification and accreditation schemes. The impact on small and developing country producers is felt strongest with regard to labelling schemes that relate to the methods of production. Developing country producers may find themselves unable to quickly adapt their production methods, either for financial reasons or due to the lack of available technologies.

8. Which WTO rules apply to standards and labels?

The two most relevant WTO Agreements on standards and labels are the Agreement on Technical Barriers to Trade (TBT Agreement), which deals specifically with mandatory technical regulations and voluntary standards, and the General Agreement on Tariffs and Trade (GATT), which covers trade in goods. Depending on the design of the legislation, either the GATT or the TBT Agreement will be more relevant. However, the application of one agreement does not necessarily exclude the application of the other. The TBT Agreement is aimed at ensuring, inter alia, that technical regulations and standards do not create unnecessary obstacles to international trade. It covers mandatory labelling schemes and minimum standards that relate to the end-use performance of a product, such as its energy efficiency level, and, in its “Code of Conduct” Annex, voluntary labelling schemes relating to the end-use of products. It contains two basic obligations for WTO Member States: first, a provision prohibiting discrimination against and between foreign products; and second, the so-called “necessity” requirement which obliges WTO members not to adopt standards that are more trade-restrictive than necessary for achieving legitimate objectives such as environmental protection.

The GATT applies to a broader range of measures. It contains similar non-discrimination disciplines, including non-discrimination specifically applying to taxes, but also provides exceptions to these disciplines for environmental measures.
Often, both the GATT and the TBT Agreement cover the same measure. In terms of which rules apply, whether standards and labels relating to production methods and processes used for a certain product, especially those that cannot be detected in the final product, are covered by the TBT Agreement is a matter of debate. Due to the specific language used in the TBT Agreement and views expressed when drafting the TBT Agreement, these measures might instead be considered only under the rules of the GATT. This is because, inter alia, the TBT Agreement is more focused on technical barriers to trade relating to the characteristics of a product, including end-use performance. WTO case law has not yet confirmed this view, however.

Generally, the GATT might apply to mandatory schemes, but voluntary schemes are unlikely to be covered.

Both the TBT Agreement and the GATT can apply concurrently to a particular measure, except in case of conflict between them, in which case the TBT Agreement will prevail to the extent of the conflict. Given that there does not appear to be a conflict between TBT and GATT provisions, at least prima facie, both agreements apply concurrently. In case of a complaint presented under both agreements, it may be that a WTO Panel would first scrutinize the measure under the TBT Agreement, given that it may consider it to be the more specific agreement to the case at hand. And if its application of the TBT Agreement to the measure means that it does not have to address the GATT issues, it may exercise judicial economy and decide not scrutinize the measure under the GATT.

9. How do the general non-discrimination principles of WTO law relate to standards and labelling initiatives?

The crux of the non-discrimination principles of WTO law is that WTO Members may not distinguish in a discriminatory fashion between “like” products. If two products are found to be “like”, one product cannot be treated less favourably than the other product. Generally, discrimination or less favourable treatment cannot be the purpose of a given measure, nor can it be the effect of its implementation (this means that a measure could be designed in a non-discriminatory manner, but still be discriminatory in its effect, and thus violate the non-discrimination principles of the “WTO”). If two products are not “like”, however, a government is free to treat the two products differently. A narrow determination of “likeness” therefore leaves more policy space to governments. Despite its repeated use, the term “like” products is not defined in the relevant WTO Agreements, thus it is likely to be applied differently in the context of different agreements.

In the context of the TBT Agreement, the term has not been interpreted so far. In fact, there is reason to believe that the “like product” concept will play a less important role under that Agreement. The TBT Agreement assumes that standards and labels distinguish between products based on product characteristics. While some uncertainty remains on how WTO panels and the Appellate Body would approach the “likeness” issue under the TBT Agreement, jurisprudence from past WTO decisions concerning the GATT indicates that there are four criteria which, when taken together, instruct the determination of the “likeness” of two products:

1. the products’ end-uses in a given market;
2. consumers’ tastes and habits;
3. the products’ properties, nature and qualities (or “physical characteristics”); and
4. the products’ tariff classifications.
Using these four criteria, it is possible that WTO panels could find that energy efficient products are not “like” their inefficient counterparts. Energy efficiency is an important factor influencing consumers’ tastes and habits. Moreover, energy efficiency can be regarded as a key determining factor for a product’s “properties” and “qualities” under criterion three, above. Since the list of four criteria is not closed, a dispute settlement panel may, in light of the global concern on global warming, even consider energy efficiency as an additional criterion.

The question of whether products manufactured by different production methods or processes are to be considered “like” under WTO law is a longstanding unresolved debate. Although the Appellate Body has made clear that measures based on processes and production methods can be WTO consistent, it has up to now avoided the “likeness” question. In the US – Shrimp case, the Appellate Body held that a measure based on how the shrimp was harvested (a process-based measure) was an illegal ban (under the GATT Agreement), but ultimately found that the measure qualified as an additional criterion.

Non-discrimination WTO Member Y, whose laptop manufacturer only produce laptops meeting the threshold of category “D”, might argue that its non-efficient laptops are put into a competitive disadvantage in comparison to laptops with a higher energy efficiency performance in violation of the non-discrimination principle. It could argue that all laptops are “like” products and that their laptops should not be treated less favourably. However, nothing in the TBT Agreement disallows labelling or standards – measures that are precisely applied to distinguish one category of products from another. It is inherent to the agreement that products can be distinguished based on their product characteristics, such as energy efficiency. What is not allowed under the TBT Agreement is to categorize equally energy-efficient laptops differently. For example, WTO Member Y could validly argue that equally energy efficient laptops produced in WTO Member X should also be categorized as a category D product.

Necessity requirement In addition, Country Y could argue that the mandatory labelling schemes applied by WTO Member X are ‘more trade-restrictive than necessary to fulfil a legitimate objective’ (referring to Art 2.2 TBT). It could argue that an alternative, less trade restrictive measure, such as a voluntary labelling scheme should be applied instead. Under such a scheme the exporter could choose not to label at all, something that might be commercially beneficial if its laptops energy efficiency performance is poor. It is unlikely that this argument would be successful. First, the TBT Agreement explicitly lists environmental protection as a legitimate objective. In light of the current global concern with regard to climate change, the objective would be considered important. Moreover, it can be convincingly argued that the level of protection that WTO Member X wishes to achieve through mandatory labelling could not be achieved through a voluntary scheme.

WTO compatibility of a compulsory labelling scheme displaying the energy efficiency of laptops

All laptops sold in the market of the WTO Member X must display their energy efficiency performance on a label attached to the product. The label groups the laptops into six different categories of energy efficiency performance from “A” to “G”. To qualify as an “A product”, a laptop has to meet a specified level of efficiency. Products not meeting the threshold can still be sold on the market, but the label will display their poor energy performance by grouping them into one of the less preferred categories. Since consumers are likely to prefer the more efficient products, retailers order fewer laptops from the lower efficiency categories. The labelling scheme adopted by WTO Member X is a product-related labelling scheme, which clearly falls under the scope of the TBT Agreement. The TBT Agreement allows for these types of labelling schemes but requires that they fulfil a number of basic principles.
10. What should WTO Members consider when adopting standards and labelling schemes?

Generally, WTO Members are not deterred from adopting climate-related standards and labelling schemes. Standards and labels both relating to the energy performance of the final product or the manner in which products are produced, are likely to comply either with general WTO disciplines or the general exceptions clause of the GATT.

Nevertheless, governments should bear in mind that harmonization of product-related standards can prevent a great deal of trade distortion. Therefore, international harmonization of energy efficiency measurement, for example the related testing, certification and accreditation of purported efficiencies, could both facilitate trade and benefit the environment. While harmonization should not impede the possibility of some states to adopt ambitious environmental standards, industrialized countries must realize that standards and labels, particularly those relating to processes and production methods, can be particularly burdensome for developing country exporters who risk losing market access.

Current WTO practice on notification of standards and labelling could be improved to better target the needs of developing countries, for instance through consulting procedures that aim at alerting developing country members if their exports are threatened by a standard or labelling initiative. Where financial or technological assistance is necessary to ensure continued market access of developing countries under a standard or labelling initiative, it should be provided by industrialized countries according to their obligations under the WTO and the UNFCCC.

Further Reading

- Waide, Paul/Nathalie Bernasconi-Osterwalder, Standards, Labelling and Certification, Background Paper for Trade and Climate Change Seminar June 18-20, 2008, Copenhagen, Denmark, International Institute for Sustainable Development (IISD), August 2008;
Fuel Efficiency Schemes as a Climate Policy Tool – Potential and Approaches

1. Why are fuel efficiency schemes an important tool for combating climate change?

Recent trends and figures reveal that curbing emissions from the transport sector should be a central part of climate policies. GHG emissions due to transportation increased 120% between 1970 and 2004.

In 2004 the transport sector produced 6.3 gross tonnes of CO₂, which equates to 23% of the global energy-related emissions. While industrialized countries account for two-thirds of this total, transportation and related emissions in developing countries are on the rise. In industrialized countries, over half of the energy consumed for transportation is consumed by households in the form of gasoline or diesel fuel for personal vehicles. Despite the improved fuel efficiency of today’s vehicles, energy consumption for transportation continues to rise, which leads in turn to the increase of CO₂ emissions because most cars use fossil fuels. This consumption trend can be explained by increased consumer preference for larger, more powerful vehicles, as well as an increase in the average distance travelled by car.
The potential emissions reductions by fuel efficiency standards are huge. Reportedly, according to the US National Commission for Energy, increasing the fuel efficiency requirement for cars in the US by 20 miles per gallon (equivalent to 8.5 km per litre) would reduce projected oil consumption by 3.5 million barrels a day. This would reduce CO₂ emissions by 400 million tonnes per year. Even in the European Union (EU) with its relatively stringent fuel efficiency standards, CO₂ emissions from cars rose 26% between 1990 and 2004, which justifies the adoption of stricter efficiency standards.

Hence, governmental measures to promote fuel efficiency (i.e. to reduce the amount of fuel used per kilometre) are key elements in mitigating carbon emissions in the transport sector.

2. What have been some recent developments in the adoption of fuel efficiency schemes?

Increasingly, countries are adopting fuel efficiency standards. Based on fleet-average fuel economy rating, the most stringent fuel efficiency standards were adopted by the EU and Japan. By comparison, the study found that the US had the lowest fuel efficiency standards in the industrialized world.

The State of California recently gained approval for a plan to impose stricter standards on emissions from motor vehicles than those applied on a federal level, on June 30. Although originally rejected by the Environmental Protection Agency (EPA) under the Bush Administration, this waiver from (more lenient) federal emissions standards was reconsidered immediately upon President Obama’s inauguration, and granted five months later. Based on California’s example, eighteen other U.S. states have followed suit, or are expected to follow suit in the near future.

Following an order by President Obama, the U.S. Department of Transportation has also tightened federal fuel efficiency standards for cars and light trucks. Passenger cars will have to achieve fuel economy of 30.2 miles per gallon (mpg), and light trucks a fuel economy of 24.1 mpg. The new standard which is projected to raise the industry-wide combined average to 27.3 mpg will take effect for the 2011 model year. According to estimations by the Department of Transportation, the new standard will reduce CO₂ emissions by 8.3 million metric tons. Under the Corporate Average Fuel Economy Regulation, manufacturers are subject to penalties for cars not meeting the standard. However, they can earn credits for those models that exceed the required fuel efficiency.

The EU has until now relied on voluntary agreements with the automobile industry, which had committed itself to fixed targets for CO₂ emissions reductions for new cars, in a fixed time-frame. In December of 2008, however, the European Parliament approved new mandatory targets for the motor industry as part of the EU’s general climate package, albeit in less a stringent form than originally envisaged in light of expressed industry concerns. Those targets are now part of EU law, as Regulation (EC) No 443/2009.

The regulation aims to achieve an average of 120 grams of CO₂ per kilometre (gCO₂/km) by 2012 for new passenger cars registered in the EU. To achieve those target averages, 130g CO₂/km shall be reduced through improvements in engine technology and an additional reduction of 10gCO₂/km through complementary measures. However, manufacturers benefit from phase-in periods until 2015, during which only certain percentages of their new car fleet have to meet the target. The regulation foresees penalties for exceeding the targets. The compromise text remains committed to the long-term target of 95gCO₂/km, subject to review in 2013.

3. Which approaches have been pursued by legislators to adopt fuel efficiency schemes?

With regard to the design of fuel efficiency standards, various approaches are conceivable. Apart from being either mandatory or voluntary, approaches might differ with respect to technical aspects such as the procedure to test fuel efficiency, or the basis of measuring efficiency. Moreover, various ranges of cars may be included into a scheme, and standards can apply to either a single class of cars or to the fleet-average of a manufacturer.

Regarding test cycles, the US, the EU, and Japan have each developed their own test procedures simulating real-world driving conditions. Other nations adapt their test procedures to one of these three procedures. An even wider variety of test procedures exists with regard to measuring efficiency. While recently adopted schemes, e.g. in the EU, California, or Canada, tend towards mandatory standards based on CO₂ or GHG emissions per distance travelled, the common model used so far has been to measure fuel economy in terms of distance travelled per volume of fuel consumed.

Most countries apply their efficiency or emissions standards only to new passenger cars; Canada is a notable exception, subjecting both new and in-use cars to efficiency standards. Fuel efficiency regulations may either set minimum requirements to be met by all vehicles in a given class of automobiles or provide for targets to be met by the average of the car fleet of each manufacturer. Additionally, several countries reinforce their fuel economy standards through labelling or by way of tax incentives.

WTO Law and Fuel Efficiency Schemes

4. Do fuel efficiency schemes affect trade, and if so, how?

Fuel efficiency standards set mandatory levels for the fuel efficiency of cars at the national or sub-national levels. While their application is territorial, their effects go well beyond the boundary of the country applying the standard. For example, in the case of a mandatory minimum standard, an exporter will have to adapt its products to the fuel efficiency standards adopted in the importing country in order to retain or gain market access. Likewise, if subjected to fleet-average requirements, a manufacturer might need to adapt the configuration of models marketed in a foreign market or adopt certain technologies to achieve compliance. Both standards and fleet average requirements therefore have important production and
trade implications. The trade effects of fleet average standards may be less evenly distributed and more complex to apply; because manufacturers specialized in heavier or high performance cars might not have manufacturing lines of fuel efficient small passenger vehicles, fleet-average requirements may hit them particularly hard.

Fuel efficiency schemes can also include mandatory and voluntary fuel efficiency labels for vehicles. These can influence consumer preferences and compel manufacturers to adapt to consumer preferences for more efficient vehicles in order to maintain their market position. This adaptation may accelerate into a de facto standard if and when associations of manufacturers commit themselves to voluntary, fuel-efficiency agreements to achieve certain targets, and thus remain competitive. In addition, taxes levied on the basis of vehicle fuel efficiency can directly influence the retail price, consumer demand, and thus, international trade.

5. Which WTO rules are applicable to fuel efficiency standards?

WTO law neither includes, nor prohibits, specific rules on fuel efficiency standards. Nevertheless, there are several WTO disciplines that apply to standards, including, for example, the general non-discrimination obligations. These rules are set forth in the GATT and the TBT Agreement.

As discussed in the previous section (B:8) on labelling and standards, depending on the design of the legislation, either the GATT or the TBT Agreement will be more relevant. Because the TBT Agreement specifically deals with standards and labelling based on product-related characteristics, such as the fuel efficiency, it is the more relevant Agreement in the context of fixed minimum requirements for the fuel efficiency of cars and labelling initiatives that reinforce fuel efficiency regulations.

The GATT applies to a broader range of measures, including rules that specifically apply to taxes. Thus, it is uncertain how regulations using a fleet average approach would be assessed under WTO law. Although one may argue that the TBT Agreement still covers these measures, it may be more appropriate to consider them under the GATT.

As noted above, both the GATT and the TBT Agreement can cover the same measure. In principle the TBT Agreement applies over the GATT in case of conflict, but conflict is not to be presumed, and in any event, prima facie there does not appear to be one, since the TBT Agreement elaborates on the GATT by imposing different and additional obligations. Recognizing whether a case falls within the TBT Agreement, the GATT, or both is not an easy task, however. In EC – Asbestos, for example, the Appellate Body found that the French decree prohibiting the import of asbestos-containing products, while allowing for certain exemptions, was a technical regulation subject to the TBT Agreement. But since the Panel had not examined the measure under the TBT Agreement, the Appellate Body decided not to engage the issues, and instead examined the measure under the GATT.

6. Do WTO rules allow members to treat foreign cars differently based on fuel efficiency?

The non-discrimination principles of WTO law require WTO members to treat foreign cars no less favourably than “like” national cars and not to discriminate between “like” foreign cars. This means that products can be treated differently, if they are not “like.”

7. Are fuel efficient and non-fuel efficient cars “like”?

The answer to this question is not simple and may differ for each provision in which the non-discrimination principle is applied. A panel under the 1947 GATT – the predecessor of the WTO – found, when considering a tax measure, that it was legitimate to distinguish between automobiles with a fuel efficiency performance above a given threshold and those below. Though it is unclear how WTO panels and the Appellate Body would approach the same question today, they have given some indications in other cases as to how they might deal with this issue, particularly when assessing “likeness” under the GATT. When determining whether two products are “like” panels and the Appellate Body look at the following factors:

1. the products’ end-uses in a given market;
2. the products’ properties, nature and qualities;
3. the products’ tariff classifications; and
4. consumers’ tastes and habits.

These criteria leave significant room to distinguish between fuel efficient and inefficient cars. A member might, e.g., claim successfully that in light of both climate awareness and high fuel prices consumers differentiate between fuel efficient and inefficient cars. In addition, the technologies employed to achieve the fuel efficient performance of the car may also serve to distinguish the qualities, nature, and properties of an efficient automobile distinct from those of an inefficient analogue. In this respect, the ruling of the WTO Appellate Body in the EC – Asbestos case provides authority. Deciding on whether chrysotile asbestos fibres were “like” certain other fibres, the Appellate Body observed that carcinogenicity of chrysotile asbestos fibres was a “defining aspect” of their physical properties. Among other factors, this finding led the Appellate Body to conclude that chrysotile asbestos fibres and other fibres were not “like” products. More generally, the Appellate Body stated that “the health risks associated with a product may be pertinent in an examination of likeness”. Thus, the EC – Asbestos case indicates that public policy objectives like climate mitigation can indeed inform the interpretation of “likeness”.

Even if a WTO Panel or Appellate Body found that fuel efficient cars are “like” fuel inefficient cars, fuel efficiency standards would still not violate the WTO’s non-discrimination principle, unless there is less favourable treatment of imported cars as compared to domestic cars. This will have to be examined on a case by case basis.

It is important to note that it is likely that the “like product” concept will be less crucial under the TBT Agreement. Standards that distinguish between products based on product characteristics are inherent to the TBT Agreement.
8. Are fuel efficiency standards “necessary” to reduce carbon emissions and combat climate change - or could other, less trade restrictive measures, achieve the same objectives?

WTO Agreements, such as the GATT and the TBT Agreement, incorporate a “necessity” test, which requires that trade-restrictive measures be “necessary.” In a nutshell, when WTO panels examine whether a challenged measure is “necessary” they will consider whether or not another less restrictive trade measure that could achieve the same level of protection is also reasonably available. If a less restrictive measure is reasonably available, the original measure challenged at the WTO would be considered not necessary and thus not WTO-consistent. The three factors balanced under the necessity test are: (i) the contribution made by the (non-indispensable) measure to the legitimate objective; (ii) the importance of the common interests or values protected; and (iii) the impact of the measure on trade.

With regard to the first factor, the Appellate Body in Brazil-Tyres held that the measure needs to make a “material contribution” to the legitimate aim pursued, in contrast to a contribution that is “marginal or insignificant, especially if the measure at issue is as trade restrictive as an import ban.” The Appellate Body added that demonstrating a material contribution can be done on the basis of past or present evidence and data, and also on the basis of projections and qualitative reasoning regarding the measure’s capability of making a material contribution. In this connection, the Appellate Body explicitly referred to climate change as an example of a complex environmental problem that needs to be tackled with a comprehensive policy comprising a multiplicity of interacting measures, the results of which can only be evaluated with the benefit of time.

Although fuel efficiency standards can impose significant trade restrictions since they ban non-complying cars from the market, they have also been assessed as highly effective, leading to measurable results. Additionally, high-level scientific findings of the international community, including the Intergovernmental Panel on Climate Change (IPCC), clearly acknowledge the importance of the “value protected” by the measure (climate change) and many countries are already applying fuel efficiency standards. It can therefore be expected that a WTO panel would find the values sought to be protected as being of high importance. In balancing the three factors, it appears that fuel efficiency standards are very likely to meet the necessity requirement of the TBT Agreement, as well as under the general exceptions clause of the GATT, if applicable.

Weight-based fuel efficiency standard for passenger cars

WTO Member X adopts a fuel efficiency standard for all new passenger cars to reduce fuel consumption and limit the GHG emissions from its transportation sector. The legislation differentiates six weight classes of automobiles. For each weight class, a minimum average of kilometers per liter of fuel is fixed. All new cars sold by both domestic and foreign manufacturers have to meet the minimum level in the respective weight class to be sold in the domestic market.

The sports car “Tempo XXL” from the main car manufacturer of WTO Member Y does not meet the specified minimum level in its weight class under the fuel efficiency standard of WTO Member X. The car simply consumes too much.
Therefore, the “Tempo XXL” may no longer be exported to WTO Member X, even though it has been the main exported model by its manufacturer in the past.

WTO Member Y challenges the fuel efficiency standard of WTO Member X, alleging that the legislation discriminates against exports from Member Y’s car manufacturers and that WTO Member X could achieve its CO₂ emissions reductions in a less trade-restrictive manner. Since the legislation introduces a standard and the TBT Agreement specifically covers standards (or “technical regulations”), it is likely that it will be assessed under the TBT Agreement.

**Non-discrimination** WTO Member Y could first challenge the minimum level fixed for the weight class of the “Tempo XXL,” arguing that it is set in a way that treats its cars less favorably than other cars in other categories and even other cars in the same category and, thus, discriminates against them. However, nothing in the TBT disallows using standards to distinguish two products from each other, thus setting different standards for different cars. Unless WTO Member Y can show that the “Tempo XXL” would meet the required fuel efficiency standard, for example according to a more realistic testing method, claims for a violation of the non-discrimination principle are likely to be unsuccessful.

**Necessity requirement** WTO Member Y could also allege that the mandatory minimum standard violates the so-called necessity requirement because other less trade-restrictive, but equally effective measures are available to WTO Member X. While WTO Members have the right to set their own environmental objectives and levels of protection, they are still required to try to achieve those objectives in the least trade-restrictive manner. WTO Member X would therefore have to explain that its fuel efficiency legislation makes a “material” contribution to its goal to reduce its GHG emissions to a specified level and that other measures could not have the same result. These assertions could be backed by relevant studies (such as the IPCC study) that demonstrate that fuel efficiency standards can contribute effectively with measurable results to climate protection (and air pollution abatement). Arguably, the case could be convincingly made that less trade-restrictive measures, such as the introduction of fees or taxes are all less likely to induce immediate improvements in fuel efficiency than a weight-based minimum standard. It is therefore likely that the fuel efficiency standard of WTO Member X would meet the necessity requirement and be found WTO-consistent.
A fleet-average standard for the CO₂ emissions from passenger cars

In order to limit the GHG emissions from its transportation sector, WTO Member X adopts a new standard for passenger cars. The average emissions of the car fleet of every domestic and foreign manufacturer shall not exceed 130gCO₂/km. All new cars sold and registered in WTO Member X are subject to this legislation. For each car sold and registered in WTO Member X that does not meet the prescribed efficiency level, the manufacturer has to pay a fee commensurate to the amount a particular model emits above the 130gCO₂/km threshold. When a model emits less than 130gCO₂/km, manufacturers would receive a credit. Under a fleet-averaging scheme, manufacturers can even out the fees they would have otherwise paid for their non fuel-efficient cars with the credits received for more fuel-efficient models.

A major car manufacturer from WTO Member Y exclusively produces fast sports cars. WTO Member Y challenges the legislation from WTO Member X before the WTO, alleging that the standard discriminates against exports from sports car producers. The challenged legislation is composed of a standard and a fleet averaging scheme. Member Y and X might disagree on which WTO Agreement shall apply. This legislation could be examined under the GATT rather than the TBT Agreement, because the standard is not in and of itself applicable, but takes effect only in conjunction with the fees and credits imposed under the fleet averaging scheme.

The particularity of this case is that the differential treatment does not lie in treating fuel efficient cars differently from non fuel efficient ones, but in treating sports cars from specialized producers differently than sports cars from producers with a wider selection of models. While producers with a wide range of models can even out the high emission levels of their sport cars by obtaining credit for other models, the specialized manufacturers need to always pay a fee for their cars. This could lead to a finding discrimination, through a violation of either the national treatment or the Most Favoured Nation principle.

Even if a measure such as the fleet average legislation is found to violate the non-discrimination principles of the GATT, it can still be justified under the GATT, if it qualifies as a general exception under GATT Article XX. Measures taken by a government to protect the environment are allowed under Article XX, even if they are in violation with certain principles of the GATT. Whether a measure is ultimately shielded under the environmental exceptions clause depends on how the legislation is structured and applied. Specifically, the measure should not constitute “arbitrary or unjustifiable discrimination or a disguised restriction on international trade”. In principle, a reasonably applied fleet average measure should fulfill these basic good faith requirements.
Border Carbon Adjustments – Explanations, Rationales and Drawbacks

1. What are border carbon adjustments?

The term “border carbon adjustments” refers to a range of possible measures aimed at adjusting for the costs of climate policies incurred by domestic industries as compared to costs incurred by foreign producers in countries with different climate policies. Since these measures are applied at the border on imported or exported products, they are essentially a trade policy tool. Border adjustments are conceivable both as a national measure and as part of the international framework addressing climate change.

2. What types of climate policies are associated with border carbon adjustments?

Border carbon adjustments aim at levelling the playing field in competing industries. They can be used to adjust the costs incurred due to a wide range of domestic climate change regimes that in one way or another raise the costs of production for domestic industries. To date, border carbon adjustments have been discussed in conjunction with either domestic carbon tax or cap-and-trade schemes for policies to reduce greenhouse gas emissions. In the case of carbon taxes, imported goods are subject to a charge amounting to the equivalent of the climate change-compliance costs that would have incurred, had the goods been produced domestically. Under the same scheme exporters may get a tax rebate, which would put their products on the same competitive footing as the same products originating from abroad. This type of border carbon adjustment can also be referred to as “border tax adjustment”.

Freight trains © Mitch1921/Dreamstime
In the case of cap-and-trade schemes (schemes involving trading of emission allowances, where the total number of allowances is strictly limited or “capped”), a border carbon adjustment requires domestic importers or foreign exporters of goods to buy emission allowances calculated based on the amount of carbon emitted in the production process. This requirement is parallel to the requirements imposed on domestic producers and therefore levels the playing field.

3. What is the rationale for border carbon adjustments?

There are several reasons why countries are considering the adoption of border carbon adjustments.

One of the most cited reasons for border carbon adjustments is to address competitiveness concerns voiced by industries in those countries that are considering or have adopted strong climate policies. Typically the industries concerned are carbon intensive, such that energy inputs reflect a significant cost of production. Thus, they are more sensitive to climate policies. These industries include for example: cement, chemicals, aluminium and steel. These industries claim that the competitiveness of their products both domestically and abroad is affected because foreign market participants are not subjected to any comparable climate policies and thus, do not incur similar costs.

Additionally, policy makers have expressed concerns that imposing high costs on domestic producers may cause production of carbon-intensive industries to shift to countries lacking regulation to control GHG emissions. Such “leakage” of emissions could undermine the goals of an international climate change regime since production processes with high GHG emissions could be performed in countries with a weak(er) GHG-reduction regime (standards & enforcement). In addition, relocation of production raises concerns about negative effects on domestic employment situations. “Leakage” of emissions is therefore closely associated with “leakage of jobs.”

Border carbon adjustments are considered a tool to reduce “leakage” by inducing other countries to implement comprehensive climate policies, such as the adoption of cleaner production technologies. A third function of border carbon adjustments that is often put forward is their function as a “leveraging” or “compliance” tool to induce the adoption of stringent climate regulation in other countries, and thereby tackle the free-rider problem in an international climate regime.

4. Are the concerns about the competitiveness of domestic producers legitimate?

It is easy to assume that costs of climate policies automatically translate into competitiveness impacts for domestic producers. In assessing competitiveness concerns, a wide array of factors need to be taken into account, including the degree of international trade, costs of transportation for the respective goods, and inter-changeability of products in the eyes of consumers. Other relevant factors, such as productivity of labour, proximity to the supply of raw materials, proximity to the consumer market, currency rates and, increasingly, the price of commodities are all important factors for global firms – often outweighing the cost of offsetting CO₂ emissions.

Moreover, concerns about current competitiveness impacts turn a blind eye to the fact that strong environmental regulation forces an industry to adapt in a way that makes it much more competitive in the market. This is because other firms that did not face these regulations are unable to keep up over time. Given the long-term challenge of climate change, this idea is particularly pertinent. Competitiveness concerns arise most notably for energy-intensive industries, such as those producing primary goods like steel, aluminium, cement, paper, and chemicals. However, some studies show that competitiveness impacts are not large enough to be alarming and that as a consequence, the loss of jobs is not expected to be significant. In addition, cost effects on potentially affected domestic industries are often already diluted by other complementary measures to domestic climate regulation. Against the backdrop of such observations, calls for border carbon adjustments easily appear motivated by protectionism for domestic industries instead of evening out distortions of competition due to differing climate policies.

5. How do border carbon adjustments relate to multilateral climate policy and regulation?

International climate policies have taken into account the fact that industrialized countries both have contributed greatly to the climate problem and have the greatest capacity to respond to the threat of climate change. In the UNFCCC and its Kyoto Protocol, these elements are reflected in the principle of “common but differentiated responsibilities.” Border carbon adjustments could shift the burden created by climate policies adopted in developed countries to developing countries and emerging economies, thereby disregarding the obligation of industrialized countries to take the lead in fighting climate change. This could have the effect of contradicting the principle of common but differentiated responsibilities. Further, it could be perceived as undermining the negotiated balance of responsibilities for mitigation actions under the climate regime, which requires immediate reductions by industrialized countries and defers such commitments for developing countries, in order to enable development and poverty alleviation.

6. How have countries approached the border carbon adjustments issue so far?

In general, competitiveness concerns factor into the climate policy discussions on border carbon adjustments of most industrialized countries; and thus, have wide currency among policy makers. A number of EU Member States, for example, favoured the inclusion of border carbon adjustments into a final climate legislation package, while others cautioned against this option due to fears of WTO-liability. The final EU Climate Package foresees free allocation of allowances to European industry sectors that appear likely to shift production to countries with less stringent GHG efficiency legislation applicable to the sector. An industry sector is considered at risk when...
it faces particularly high costs of compliance with domestic climate regulation (economic impact) and there is a high degree of international trade in that sector (exposure to international trade). Currently, a sector or sub-sector is “deemed to be exposed to ‘significant risk’ of carbon leakage” – and therefore qualifies for 100% free allowances – if it meets one of these three criteria:

1. Production costs (economic impact) exceed 5% of gross value added and the total value of exports and imports divided by the total value of turnover and imports (exposure to international trade) exceeds 10%;
2. Production costs exceed 30% of gross value added; and
3. The total value of exports and imports divided by the total value of turnover and imports exceeds 30%.

Free allocation of allowances reduces the cost of compliance with domestic climate regulation, but also tends to reduce the effectiveness of the climate regulation. However, some form of border carbon adjustment remains an option for the future. Depending on the outcome of an international agreement on climate change and the findings of an analytical report assessing the situation of sectors or sub-sectors exposed to a significant risk of leakage, EU legislators may choose in 2010, among other options, to subject importers of products from the affected sectors to the EU Emissions Trading Scheme.

While the final outcome of future climate legislation in the US is still uncertain, border carbon adjustments feature prominently in some main bills discussed so far in Congress. Proposals to address competitiveness concerns and leakage problems in a cap-and-trade program include: a rebate system, for sectors and sub-sectors of industries that appear at risk to relocate their production due to high compliance costs and a high degree of international trade; and a border adjustment system, involving special international allowances for US importers of competing products, if the rebate system fails to adequately address competitiveness. However, because this legislation is moving through congress, and thus constantly evolving, it is difficult to predict if and how border adjustments will be addressed in the final product.

WTO Law and Border Carbon Adjustments

7. Does WTO law permit border carbon adjustments?

In principle, yes. In general, the relevant WTO agreements appear to allow border carbon adjustments as long as they are non-discriminatory. The GATT, the most important agreement in this context, even includes an explicit provision indicating that a “border tax adjustment” is permissible, provided it fulfils the basic WTO rules relating to non-discrimination. Other variations of border carbon adjustments are not mentioned by name, but they too should be considered permitted in principle. Whether a given border carbon measure is or is not WTO-compatible will depend on its structure, design, and application.

8. What requirements does the WTO impose on the use of border tax adjustments?

As a basic principle, WTO law, under GATT Art. II:2(a) and Art. III:2, permits the use of border tax adjustments that are imposed equally on both domestic and imported goods. The rationale is that if a country taxes a domestic product (e.g., domestic cigarettes), the country may also tax the same imported products (e.g., imported cigarettes) at the same rate. A charge that is applied equally to both domestic and imported high-carbon products qualifies as a WTO-compliant border tax adjustment.

However, direct taxes (meaning taxes levied on producers), in contrast to indirect taxes (meaning taxes levied on final products or parts incorporated therein), are generally not adjustable at the border. Therefore, it is argued that taxes imposed on the producer only during the production stage of the product could not be adjusted by a border measure. Still, one may contend that energy or carbon taxes could be considered indirect taxes because they are levied on inputs used during the production and, hence, apply “indirectly” to the product.

If charges based on the carbon released during the production of a good are considered an indirect tax, WTO rules would allow the charges to be adjusted at the border. While the prices paid by producers for allowances under a cap-and-trade program are not “taxes” in the strict sense of the word, it can be argued that they constitute charges comparable to a tax and could, thus, be covered by the WTO framework for border tax adjustments.

9. What requirements does WTO law impose on the use of border carbon adjustments?

Border carbon adjustments, including border tax adjustments, must generally comply with two bedrock principles of WTO law contained in the GATT: the National Treatment principle and the Most Favoured Nation principle. The National Treatment principle requires that governments treat foreign products no less favourably than “like” domestic products, while the Most Favoured Nation principle requires similar treatment between “like” products between different importing countries.

To comply with the non-discrimination requirement under the National Treatment obligation, WTO Members need to ensure that they are treating domestic and foreign products, such as steel, similarly, meaning that the border carbon adjustment should affect domestic and foreign producers to the same degree. Adjustment schemes for cap-and-trade programs could comply with this condition by creating the same market conditions for purchasing allowances for foreign and domestic steel producers -- for example, by applying the same tax rates or allocating the same amount of free allowances to foreign and domestic steel producers.

However, the tax rates or the number of allowances that need to be applied for a given imported product would depend on the production method used for the product in the exporting Member State. This is because the border tax or charge would need to relate
to the amount of carbon released by a particular process or production method, in connection with the monetary value of such release. Assessing and verifying production methods can pose high administrative burdens on the country applying the border carbon adjustment and leaves room for arbitrary and/or discriminatory application and implementation, which could subject the border carbon adjustment measure to WTO challenge.

Similarly, the Most-Favoured Nation principle requires WTO Members not to discriminate between the “like” products of different Member States. In the US, for instance, steel from producers in China would need to be subject to the same conditions as steel from producers in the EU or Canada. Subjecting only producers from certain countries to border carbon adjustments would therefore be a violation of the Most Favoured Nation principle.

It is important to note, however, that the use of border carbon adjustments, particularly on exports from developing countries, could conflict with the principle of “common but differentiated responsibilities” enshrined in international climate law, because it may shift the current burden of climate mitigation away from developed countries to developing countries.

10. If a border carbon adjustment measure is considered discriminatory, are there other ways to justify such a measure under WTO law?

If a border carbon adjustment measure is found to violate either the Most Favoured Nation or the National Treatment principle, the measure may nonetheless qualify as a legitimate exception to the principles of WTO law. These exceptions, under Article XX GATT (noted above in section xx), give a WTO Member State limited policy space to pursue certain enumerated objectives. In the context of border carbon adjustments, the exceptions for measures “relating to the conservation of natural resources” or “necessary for the protection of human, plant or animal life or health” may present a safe harbour, provided that the measure is “not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination ..., or a disguised restriction on international trade.”

Article XX has been interpreted in past environment-related cases. Based on those decisions, it is likely that the Appellate Body would require a flexible application of the border carbon adjustment regime. For example, the Member applying a border carbon adjustment could not simply expect other members to adopt the same climate policy as its own. Moreover, a Member State would need to make a good faith effort to attain the same results via the multilateral climate change negotiating process before resorting to border carbon adjustments.

If border carbon adjustments were allowed or foreseen in an international agreement on climate change, carefully constructed and applied measures taken in accordance with that international agreement are likely to be considered compliant with Article XX GATT.

11. What are the key points that should be remembered by policy makers when considering border carbon adjustment measures?

There is ground to argue that border carbon adjustments are in principle permitted under WTO law; however, whether a given measure is in fact WTO-legal depends on its exact structure and application. In this regard, the differences between border measures relating to carbon taxes, on the one hand, and to charges under a cap and trade scheme, on the other, may be of consequence to the WTO’s determination of legality. Still, one could argue that border carbon adjustment measures can be designed and applied in a way that does not violate any WTO requirements and that even if they did, they could be justified under the general environmental exceptions clause of GATT Article XX, particularly if they were consistent with provisions of an international agreement on climate change.

However, even if these types of measures could be justified under WTO law, it does not follow that they should be used. It appears prudent for policy makers to try to find a multilateral solution first, rather than imposing unilateral measures, which could distort the ongoing and politically sensitive negotiations for a future international agreement on climate change. In addition, using border carbon adjustments could distort the delicate balance related to the concept of common but differentiated responsibilities, a principle that lays at the heart of the UNFCCC and recognizes the historical differences in the contributions of developed and developing States to global environmental problems, and the differences in their respective economic and technical capacity to tackle these problems.

Further Reading
- de Cendra, Javier, Can Emissions Trading Schemes be Coupled with Border Tax Adjustments? An Analysis vis-à-vis WTO Law, 15 RECIEL 131 (2006);
- Cosbey, Aaron, Border Carbon Adjustments, International Institute for Sustainable Development (IISD), Trade and Climate Change Seminar June 18–20, 2008, Copenhagen, Denmark;.
Green Climate Subsidies  
– How Can Public Financial Support Help to Fight Climate Change?

1. How are subsidies used in climate policy?

Subsidies can play an important role in encouraging development and reliance on more environmentally sound practices and industries. Governments may adopt subsidies: for renewable energy production and distribution, subsidies for the adoption of energy efficient production methods or the purchase of energy efficient products, subsidies for advanced research in and development of climate-friendly technologies, etc.

To provide some examples: securing preferential prices for renewable energies, for example by guaranteed feed-in tariffs, ensures revenue for renewable energy producers and can leverage further investment in renewable energy production. Preferential loans or financial contributions to develop and implement offshore wind energy projects can kick-start increases in renewable energy production. Financial contributions to improve public transport systems can help to shift transportation modes.

Several technologies that appear promising in the context of climate change still require further research and development to be economically feasible on a large scale: providing financial support to research projects aimed at developing "no-emission cars" or improving the efficiency and feasibility of renewable energies, such as photovoltaic can enable important technological advancements. Moreover, subsidizing the conservation of forests that remove carbon from the atmosphere is another option for climate-friendly subsidies, provided
it is not part of carbon trading or any other offset mechanism. Beyond that, governments may use direct payments to consumers to induce individuals to change to less energy-intensive consumption patterns. This may include, for example, “cash for clunkers” programmes which rebate consumers for replacing their old, inefficient car with a new car that meets the highest fuel efficiency standards. Along with labelling initiatives, subsidies can thus form part of a general policy to change the preferences and values of consumers. In the sector of renewable energies, for instance, subsidies can play an important role in supporting the creation of niche markets that could gradually drive out fossil fuel competitors. Recognizing that subsidizing green technologies and industries can create high numbers of new and lasting jobs, recent stimulus packages have taken up some of these ideas.

2. What types of climate-related subsidy schemes have countries adopted?

Governments apply a wide array of climate-related subsidies as part of their climate policies to cut GHG emissions and promote energy efficiency. In particular, research subsidies have been popular with a wide range of countries, including the US, the United Kingdom, Denmark, Ireland, Germany, Japan, and the Netherlands. With regard to renewable energies, governments such as those of the US, the EU, and Canada, are using broad subsidy programmes covering research and development in this field, as well as supporting the use of these energies through direct grants, tax exemptions, guaranteed prices, or ‘feed-in tariffs’ above market price. The Stern Review 2006 estimated that renewable electricity sources by now receive about US$ 10 billion. This number is likely to increase as a result of the inclusion of similar policies in recent stimulus packages. Other climate-related subsidy programs – such as those of Canada, Belgium, and the Czech Republic – include the subsidization of forestry conservation. Direct payments to consumers are also commonly used by governments to induce climate-friendly purchasing by households.

WTO Law on Subsidies

3. How does the WTO define a subsidy?

The WTO Agreement on Subsidies and Countervailing Measures (Subsidies Agreement) defines a subsidy as a financial contribution that confers a benefit. The financial contribution can take several shapes and forms, including direct payments, foregone revenue that is otherwise due, provision of goods or services below production price, or other forms of income or price support that are funded through governmental resources. Based on this definition, not all green climate "subsidies" will qualify as a subsidy under the Subsidies Agreement. For example, there is room to argue that regulations requiring grid operators to pay variable prices above market level to renewable energy producers are not a subsidy under WTO law. First, it can be argued that the government neither confers money directly, nor does it use its own resources indirectly to support renewable energy producers. Moreover, requiring grid operators to pay prices above market level for renewable energy simply regulates the electricity market and does not confer governmental functions to private entities. Therefore, such measures would not qualify as a subsidy provided through a private body exercising governmental functions. Moreover, taking over the cost of providing renewable energy in remote areas does not necessarily confer any benefit to enterprises if these areas would not have been delivered by any enterprise without the subsidy. Likewise, WTO case law suggests that provision of land for the conservation of forests may not be considered a subsidy if the trees are not destined to be harvested and commercialized.

It has been argued that countries not applying carbon taxes would be effectively subsidizing their exports. However, most commentators contend that general lack of environmental regulation or taxation does not fall within the definition of a subsidy in the Subsidies Agreement. A related discussion is whether free allocation of allowances would meet the definition of a subsidy. Some commentators argue that it would because an entitlement to pollute up to a certain ceiling is a valuable asset in connection with emission trading schemes. In such a case the government might be regarded as providing access to a natural resource, a provision of a good, without adequate remuneration. Others contend, however, that a government authorization, permit or other regulatory creature does not constitute a ‘good’ that is “provided” by the government, and thus the allocation of allowances falls outside the definition of the Subsidies Agreement.
4. Does the Subsidies Agreement prohibit some types of subsidies?

Yes, the Subsidies Agreement outright prohibits export subsidies and local content subsidies. This means that these types of subsidies are subject to challenge through the WTO’s dispute settlement procedure. The types of subsidies envisaged in the climate context do not typically belong to this category of prohibited subsidies, though there may be some that may. For example, in the case of direct grants to consumers for the purchase of climate-friendly products, governments should ensure that such schemes are treating foreign and domestic climate-friendly goods equally, since otherwise these schemes might be regarded as being contingent upon the use of domestic products. Similarly, financial contributions or preferential loans to the development of new offshore wind energy projects should not be tied to requirements to purchase equipment only from domestic producers.

Other subsidies can be “actionable” under the Subsidies Agreement. They can be subject to a challenge, either through the WTO’s dispute settlement procedure or through countervailing action, meaning that a Member can launch its own investigation and ultimately charge an extra duty on subsidized imports that are found to be hurting domestic producers. Subsidies are “actionable” if they: (i) qualify as a subsidy as defined in the Subsidies Agreement; (ii) are “specific”; and (iii) cause adverse effects (harm) to the interests of another Member.

Until the 31st of December of 1999, there still existed a third category (or sub-set) of subsidies termed “non-actionable” subsidies. There were measures that while falling within the definition of a subsidy, were considered permissible under the Subsidies Agreement, thus being neither prohibited nor actionable. These measures, inter alia, allowed governmental assistance to promote adaptation of existing facilities to new environmental requirements, subject to certain conditions.

5. What is a “specific” subsidy?

The Subsidies Agreement is based on the presumption that subsidies that are widely available within an economy do not cause a distortion in the allocation of resources. Therefore, the Subsidies Agreement only deals with subsidies that are specific, i.e., that have been specifically provided to an enterprise or industry, or a group of enterprises or industries. The Subsidies Agreement distinguishes between enterprise-, industry-, or region-“specific” subsidies. Additionally, export subsidies and domestic input subsidies (both prohibited under the Subsidies Agreement) are also considered “specific”.

If the eligibility for subsidies is governed by objective and neutral criteria that do not per se exclude certain enterprises, subsidies could be considered non-specific. However, if a neutral subsidy scheme is, in fact, mainly used by a limited number of domestic enterprises or if “disproportionately large amounts” granted under the subsidy scheme flow to a limited number of domestic enterprises, the subsidy will still be considered “specific.” Therefore, a subsidy to acquire more energy efficient technologies that is available to all enterprises on the basis of objective criteria could be considered “specific,” if, in fact, only a limited number of enterprises received most of the money. Hence, governments should scrutinize whether the application of the subsidy scheme could result in favouring limited groups of enterprises.
A climate-related subsidy from a certain WTO Member that is specific is “actionable,” if it has an “adverse effect” on one or more other WTO Members, meaning that it harms another Member’s industry or results in serious disadvantages for another Member’s market interests. Whether or not adverse effects will result from green climate subsidization will depend on the particular circumstances of each case. It is likely that in many cases green climate subsidies will not have an adverse effect. Moreover, proving adverse effects requires significant costs for gathering the relevant information on harm and causation between the subsidy itself and the adverse effect. In the US-Cotton case, the Appellate Body emphasized that WTO Members need to ensure that other factors affecting the price of products are not improperly attributed to the challenged subsidy.

With respect to subsidies for renewable energy, it will not only be questioned whether they are actionable, but also whether the subsidy is specific. If renewable energy enters international trade as a product and competes for market access with carbon intensive energies, then subsidies to renewable energy could be considered specific. Still, given the close connection between energy and the market interests, it could also be considered that subsidies granted to renewable energy also inure to the various sectors that utilize it, and thus are specific.

In this context, one might imagine that producers of non-renewable energy will claim adverse effects. Determining adverse effects will generally involve considering whether the subsidized producers and adversely affected foreign producers manufacture “like” products, or whether the subsidy has the effect of putting “like” products of another WTO Member at a serious competitive disadvantage. The concept of “like” products has only been interpreted once in the context of subsidies. It appears that apart from criteria used in the context in the GATT, such as a product’s end-use, its physical properties and qualities, its tariff classification and the consumer tastes and habits, WTO panels and the Appellate Body might look at how the respective industry has segmented itself. Based on these criteria, especially at times of consumer awareness about climate change, electricity from renewable energy sources might well be considered different from electricity generated from coal. Thus, it can be argued convincingly that subsidies to renewable energy producers do not create adverse effects to electricity producers that use fossil energy input since the two are not producing a “like” product.

6. When is a subsidy “actionable” under the Subsidies Agreement?

7. Could other WTO Agreements apply to climate-friendly subsidies?

Subsidies may also fall into the scope of the General Agreement on Trade in Services (GATS). The GATS provides for rules that apply once a WTO Member has committed itself to liberalization of specific services sectors. WTO Members can limit the liberalization of service sectors to specific modes of service supplies, reserve certain rights, and retain exceptions. Climate-related subsidies to service sectors might theoretically become an issue, if the WTO Member has committed itself to full liberalization of that particular service sector. However, disputes under the GATS are not very likely, since those service sectors relevant from a climate perspective have in part not yet been classified by the GATS and full liberalization of the classified services remains highly exceptional.

In addition to the Subsidies Agreement, the Agreement on Agriculture provides for specific rules applicable to subsidies in the agricultural sector. Under this Agreement, Members have committed themselves to gradually reduce subsidies in the agricultural sector. While the general aim of the Agreement on Agriculture is therefore to limit and reduce subsidies, WTO Members may still implement subsidies for environmental reasons provided they have only minimal trade effects. In the parlance of the WTO they fall under the so-called “Green Box” exemption. Subsidies granted for switches to climate-friendly agricultural techniques could also benefit from this “Green Box” exemption.

What were non-actionable subsidies?

In the past, the Subsidies Agreement provided for clear exceptions for certain subsidies, declaring them “non-actionable.” At least two categories of these non-actionable subsidies would have been relevant in the climate context: the exceptions allowing for the use of green subsidies, such as those granted to industries in order to adapt to stricter environmental requirements; and subsidies granted for research activities. Because WTO Members were unable to agree on whether to renew the non-actionable provision however, these exceptions lapsed in January 2000.
8. Are concerns about the WTO-compatibility of green subsidies legitimate?

There does not appear to be real cause for concern about the WTO compatibility of green subsidy schemes. Some measures that have important impacts on boosting the use of renewable energy for instance, such as feed-in tariffs, will not qualify as a subsidy under the WTO Subsidies Agreement. Provided WTO Members abstain from making certain subsidization dependent on the use or purchase of domestic products, green subsidies will not fall under the category of prohibited subsidies. If WTO Members ensure that their subsidies are widely available, also to foreign companies, it is likely that the subsidy will not be specific and will be challengeable by other Members. Even if a subsidy is specific, the Member challenging the subsidy scheme must still show that the subsidy creates adverse effects. Most green subsidies, however, will most likely not create adverse effects on other Members’ industries. Outside the scope of the Subsidies Agreement, subsidies to climate-friendly agricultural practices can benefit from the Green Box Exemptions of the Agreement on Agriculture and restraints on climate subsidies to service sectors from the GATS are unlikely to apply.

9. Could cutting off certain subsidies be a useful tool for climate policy as well?

While subsidization of green energies or the use of cleaner technologies is a useful policy tool to induce more climate-friendly production and consumption patterns, maintaining subsidies for CO₂ intensive industries or fossil fuel energies may impede such a transition. Given the enormous amounts spent on fossil fuel subsidies worldwide, and the huge GHG emissions savings associated with cutting off these subsidies, these green energy subsidies play an important role in international and national climate change mitigation policies. Ceasing fossil fuel subsidization is already identified as an important climate policy option by the Kyoto Protocol, which explicitly recommends the phasing-out of fossil fuel subsidies as a part of the national climate policies of developed Annex I Parties. Although there has been some movement to cease fossil fuel subsidization in some countries, fossil fuel subsidies remain a problem across the globe, including in developing countries, where they play an important role in securing access to affordable energy, particularly in the poor rural areas of a country. Since, in some developing countries, a major part of the family income is devoted to satisfy the basic energy needs, it appears understandable that attempts to cease subsidization have been met with public outrage in fear of rising prices. Such social aspects are less of a problem in industrialized countries.

10. Which role could the WTO play in dealing with fossil fuel subsidies?

Like other subsidies, fossil fuel subsidies could constitute actionable subsidies under the WTO’s Subsidies Agreement. Therefore, WTO rules may form a legal basis to challenge some fossil fuel subsidies and could therefore contribute to climate change mitigation policies. However, the success of such action will depend on evidence of harm caused by such subsidies to producers in other WTO Members. The need to prove adverse effects could frustrate opportunities to challenge fossil fuel subsidies that could ultimately lead to a phase out. Given that the current subsidies disciplines enshrined in the WTO agreements focus on trade effects rather than on environmental consequences, the current rules are probably not the ideal vehicle for dealing with fossil fuel subsidies from a climate perspective.

Further Reading
- Green, Andrew, Trade Rules and Climate Change Subsidies, World Trade Review (2006) 5: 3, 377-414;
This paper has addressed questions regarding the consistency with WTO rules and jurisprudence of a number of measures that countries are taking or may take to address climate change. For example, the paper analyzes questions relating to labels and standards, fuel efficiency schemes, border carbon adjustments, and green subsidies. The paper has generally concluded that current WTO rules provide adequate flexibility to accommodate properly designed and implemented climate measures.

Thus WTO rules should not be used as a justification for delaying action to address climate change either in national debates or international negotiations.

On the contrary, the international climate negotiations due to conclude in Copenhagen in late 2009 can help ensure greater coherence between trade law and climate actions. For example, the Copenhagen outcome can clarify that the measures described in this paper are vitally necessary to address climate change and thus help ensure that WTO rules will not impede national efforts to solve the climate crisis.

That said, it is important to note that this paper is not exhaustive: it does not pretend to address all the issues involved at the nexus of climate and trade policy. It considers the WTO compatibility of only certain climate measures. There are other climate measures, such as
green procurement, that could have trade impacts and thus, will require analysis of their compatibility with existing WTO rules. Nor does the paper address the specialized area of intellectual property rules and their relation to the development and transfer of climate friendly technologies.

In addition, the WTO is not the only body of trade law that could impinge on climate change policies. For example, regional and bilateral Free Trade Agreements may also be relevant. Similarly, investment treaties may have an impact on the regulation of climate-related investments. Finally, the use of trade sanctions as part of an international enforcement or compliance regime has been mentioned only in passing and has not been comprehensively examined in this paper.

Ultimately then, this analysis leads to two conclusions. First, that the WTO does not prevent countries from taking immediate and effective action to combat climate change. Second, that there is further work to be done to verify that the same conclusion also applies both to climate measures not considered above and to other segments of international trade and economic law.

A more comprehensive bibliography for this paper is available at www.foeeurope.org/trade/publications/2009/bibliography_tradeandclimatechange.pdf