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Climate Change and the WTO: Opportunities to Motivate State Action on Climate Change through the World Trade Organization

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INTRODUCTION

The Kyoto Protocol, the first international agreement with legally binding commitments to begin to address climate change by reducing greenhouse gas (GHG) emissions, is expected to come into force in 2004. With it, most of the developed world will be committed to modest reduction targets over the next decade. The two largest per capita emitters, the USA and Australia, have so far opted not to join this modest effort to address climate change, and developing countries, while party to the Kyoto process, are so far only engaged in voluntary action to reduce emissions.[1]

One of the reasons for the slow progress internationally in addressing climate change has been the complexity of the issue, in part at least due to the connection between climate change and economic equity, and other environmental issues. Many observers, for example, have considered the Kyoto Protocol as much a trade agreement as it is an environmental agreement. Similarly, there are clear connections between climate change and other environmental issues, such as desertification, biological diversity, resource depletion, land-use conflicts and ozone layer depletion, among others. Last, but certainly not least, equity, both in terms of intra-generational and inter-generational equity concerns, has added a layer of complexity to the negotiations that has made any progress a challenge.

Now that the Kyoto Protocol is close to coming into force, and significant changes to the climate change regime seem unlikely, at least in the short term, this article explores the role of trade in motivating action on climate change, using the specific example of developments within the World Trade Organization (WTO).

A fundamental question to be considered is to what extent the rules governing the WTO regime can assist a nation's efforts to address climate change. Specifically, the following questions arise:

- Can a State take measures to protect industries that are adversely affected by measures taken by that State to implement the Kyoto Protocol (against Annex I parties to the Kyoto Protocol and/or against non-Annex I parties)?
- Can a State take measures to protect industries that are adversely affected by measures to address climate change, independently of the Kyoto Protocol (i.e. what if a State takes steps which are more stringent than those required under Kyoto, whether or not it ratifies the Protocol)?
- Can a State take measures to influence the climate change impact of products imported into that State?
- Can a State take measures to prevent a competitive disadvantage resulting from measures to address climate change in the case of exports?[2]

The WTO was created as a result of the Uruguay Round of trade negotiations, which concluded in 1994 in Marrakech, Morocco. The negotiations were built upon the original global trade agreement, the General Agreement on Tariffs and Trade (GATT 1947),[3] which had remained essentially unchanged for almost 50

[1] For a detailed review of the Kyoto Protocol, see M. Doelle, 'From Kyoto to Marrakech: A Long Walk Through the Dessert, Mirage or Oasis?', 25 *Dalhousie Law Journal* (2002), 113.

[2] A likely means of achieving these objectives would be the imposition of border tax adjustments on products that are considered to contribute to climate change relative to domestic or other imported products. See, for example, C. Pitschas, 'GATT/WTO Rules for Border Tax Adjustments and the Proposed European Directive Introducing a Tax on Carbon Dioxide Emissions and Energy', 24 *Georgia Journal of International and Comparative Law* (1995), 479–500 and A.J. Hoerner, *The Role of Border Tax Adjustments in Environmental Taxation: Theory and US Experience*, Working Paper, presented at the International Workshop on Market Based Instruments and International Trade of the Institute for Environmental Studies (Amsterdam, 19 March 1998), available at <www.sustainableeconomy.org/BTA.pdf>.

[3] General Agreement on Tariffs and Trade (Geneva, 30 October 1947) (GATT 1947), reprinted in *The Results of the Uruguay Round of Multilateral Trade Negotiations: The Legal Texts* (GATT Secretariat, 1994), at 485–558.

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years. Perhaps the most significant change resulting from the Uruguay Round was the establishment of a binding dispute-settlement process, including a panel process, an appeal process and a process for the implementation of rulings of these WTO bodies. In addition, there were adjustments made to certain provisions of GATT 1947 (in the form of GATT 1994),[4] and a number of specific agreements dealing with certain aspects of GATT 1994 were concluded as part of the Uruguay Round. Most notable, from an environmental perspective, are the Agreement on Technical Barriers to Trade (TBT Agreement)[5] and the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement).[6]

TREATMENT OF TRADE ISSUES UNDER THE UNFCCC AND THE KYOTO PROTOCOL

In considering the impact of the WTO on compliance with the climate change regime under the United Nations Framework Convention on Climate Change (UNFCCC), it is important to consider, first, the specific connections made in the various agreements that make up the two regimes. As a starting point, the UNFCCC makes general references to the need to consider the economic cost of measures to address climate change, the principle of State sovereignty and the need for a cooperative approach to climate change, among other indirect references to the relationship between trade and climate change. More directly, the principles of the UNFCCC include a reference to the need to ensure that measures to address climate change do not 'constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade'.[7]

The Kyoto Protocol includes an obligation on parties to strive to implement climate change measures so as to minimize adverse effects on international trade.[8]

On the one hand, it is clear from these provisions that the drafters intended there to be some limit on the ability of parties to choose any measures they considered appropriate to address climate change and meet their obligations under the UNFCCC and the Kyoto Protocol. On the other hand, it seems equally clear that they anticipated that some restrictions to international trade would result from measures to address climate change and comply with the UNFCCC and the Kyoto Protocol. The provisions within the climate change regime leave open the question of when measures may be justified, and when they may not be. As we will see, the language under the WTO regime is more specific. In this context, the general language in the UNFCCC and Kyoto Protocol can reasonably be interpreted in such a manner as to be consistent with the more specific language within the WTO regime.

GENERAL OVERVIEW OF THE TREATMENT OF ENVIRONMENTAL ISSUES UNDER THE WTO

The interaction between trade and environmental issues under GATT 1994 and the WTO are essentially a result of a concern that States' measures to protect the environment, in some form or another, are either intended to, or have the effect of, restricting trade rather than just protecting the environment. In considering possible conflicts between a party's environmental protection measures and the objective of unrestricted trade, a number of possible perspectives arise.

One consideration is what a party's purpose is in putting forward the environmental protection measure. Is the purpose ultimately to protect the environment or to protect domestic industries? What if it is both? What if you cannot tell what the purpose is? Should the motivation matter, or should the focus be on the effect?

An alternative consideration is therefore to focus on the effects of the measure. Does the environmental protection measure have the effect of restricting trade? Does it have the effect of restricting trade in a manner that benefits domestic industries? If so, is the environmental objective legitimate? Is the environmental objective being met through the measure? Are there less trade-restrictive ways of meeting the environmental objective? Who determines what a legitimate objective is, what an effective measure to meet the objective is, and whether other measures that are less trade restrictive are as effective? How are conflicts between legitimate environmental protection measures, and trade restrictions resulting from their implementation, resolved?

[4] General Agreement on Tariffs and Trade: Multilateral Trade Negotiations Final Act Embodying the Results of the Uruguay Rounds of Trade Negotiations (Marrakech, 15 April 1994) (GATT 1994), reprinted in ibid., at 21.

[5] Agreement on Technical Barriers to Trade (Marrakech, 15 April 1994) (TBT Agreement), reprinted in ibid., at 138–162.

[6] Agreement on the Application of Sanitary and Phytosanitary Measures (Marrakech, 15 April 1994) (SPS Agreement), reprinted in ibid., at 69–84.

[7] United Nations Framework Convention on Climate Change (UNFCCC) (New York, 9 May 1992), Articles 1–3; see specifically Article 3(5). Note that the UNFCCC secretariat in its 1999 submission to the WTO took the position that the measures in the convention and the Kyoto Protocol do not constitute trade measures, but that trade implications may arise from national implementation. See Communication from the UNFCCC Secretariat (WT/CTE/W/123, 1999).

[8] Kyoto Protocol to the UNFCCC (Kyoto, 11 December 1997), Article 2(3).

A crucial question is to determine where the balance can be struck (in terms of environmental protection and trade) between State sovereignty to act in the interest of its citizens and the 'treaty obligation' to consider extra-territorial effects of domestic action. The following overview of the relevant provisions of the various WTO agreements, as they relate to the environment, should give some insight.

A good starting point for the consideration of how the WTO regime treats environmental issues is the Preamble to the Marrakech Agreement[9] establishing the WTO, which includes the following provision:

> Recognizing that their relations in the field of trade and economic endeavour should be conducted with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of and trade in goods and services, while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development . . .[10]

The relevance of this provision was considered by the WTO Appellate Body in the Shrimp–Turtle Ruling (No 1). The Appellate Body concluded that this provision is relevant to the interpretation of the provisions of the various WTO agreements that were in place at that time. The Appellate Body concluded that the Preamble:

> . . . demonstrates a recognition by the WTO negotiators that optimal use of the world's resources should be made in accordance with the objective of sustainable development. As the preambular language reflects the intentions of negotiators of the WTO Agreement, we believe that it must add colour, texture and shading to our interpretation of the agreements annexed to the WTO Agreement, in this case the GATT 1994 . . .[11]

The general GATT 1994 rules most relevant in the environmental context are Articles I (most favoured nation treatment), III (national treatment) and XX (exceptions). Articles I and III set out the general rules for treatment of foreign products compared to like domestic products. Article XX is perhaps of most interest from an environmental perspective, in that it provides for exceptions to the general GATT 1994 rules in the pursuit of certain environmental objectives. Article XX exempts measures necessary to protect the life or health of humans, animals or plants, as long as those measures do not arbitrarily or unjustifiably discriminate between countries and the measures do not constitute a disguised restriction on international trade (Article XX(b)). A similar exception is included in Article XX for the conservation of natural resources, if there are similar domestic restrictions on the production or consumption of the resource in question (Article XX(g)). As indicated, two agreements added to GATT 1994 during the Uruguay Round of negotiations, the TBT Agreement and the SPS Agreement, are of particular interest from an environmental perspective.[12] They are briefly reviewed below.

THE TBT AGREEMENT

The TBT Agreement[13] is particularly relevant to the consideration of links between trade and climate change as it provides considerable detail on the interpretation of provisions of GATT 1994 dealing with technical barriers to trade. Given that the most likely challenge to State action with respect to climate change mitigation is that it amounts to a technical barrier to trade, this agreement is likely to play a central role in any dispute over the trade implications of climate change mitigation measures. Furthermore, the TBT Agreement provides a new basis for the interpretation of GATT 1994 rules that have otherwise been in place essentially unchanged for 50 years. This provides the WTO panels and appellate bodies with the opportunity to take a fresh look at the relationship between trade and environment. A key aspect of this is the extent to which the provisions of this agreement may change the status quo, and whether the rulings of the WTO demonstrate any change in application since the adoption of the TBT Agreement.

The TBT Agreement entered into force with the establishment of the WTO on 1 January 1995. All Member States of the WTO are bound by the terms of this agreement. The TBT Agreement provides an interpretative tool for Articles I and III of GATT 1994. Specifically, it provides a basis on which to distinguish legitimate technical regulations and standards for such purposes as human health, environmental protection and national security from those that favour domestic products over

[9] Marrakech Agreement Establishing the World Trade Organization (Marrakech, 15 April 1994), reprinted in *The Results of the Uruguay Round of Multilateral Trade Negotiations*, n. 3 above, at 7.
[10] As applied in the Appellate Body ruling WTO AB 12 October 1998, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (AB-1998-4), at para. 152 (Shrimp–Turtle Ruling (No 1)).
[11] Ibid., at para. 153.
[12] See WTO Secretariat, *Guide to the Uruguay Round Agreements* (Kluwer Law International, 1999). For the legal texts from the Uruguay Round, see *The Results of the Uruguay Round of Multilateral Trade Negotiations: The Legal Texts*, n. 3 above. For an overview of the history of trade negotiations prior to the Uruguay round, see G.R. Winham, *International Trade and the Tokyo Round of Negotiation* (Princeton University Press, 1986). See also G.R. Winham, 'The World Trade Organization: Institution-Building in the Multilateral Trade System', 12:3 *The World Economy* (1998), 349.
[13] For a more detailed assessment of the TBT Agreement, see C. Thorn *et al*., 'The Agreement on the Application of Sanitary and Phytosanitary Measures and the Agreement on Technical Barriers to Trade', 31:3 *Law and Policy in International Business* (2000), at 841.

those imported from other countries (Article 2). All products, including industrial and agricultural products, are subject to the agreement, with two exceptions: products purchased under government procurement are not subject to this agreement, but are subject to the Agreement on Government Procurement;[14] and pursuant to Article 1, the agreement does not apply to sanitary measures and phytosanitary measures as defined in Annex A of the SPS Agreement.

THE SPS AGREEMENT

The SPS Agreement[15] is the other main agreement concluded as part of the Uruguay Round of negotiations with direct relevance to trade and environmental issues. It deals specifically with sanitary and phytosanitary measures,[16] and as such is not as likely to be directly applicable to climate change mitigation measures. It is, however, relevant to this discussion, given that many of the initial rulings of the WTO on environmental matters have dealt with the SPS Agreement. The following brief overview should provide the context in which to consider these rulings and the extent to which the findings are going to be applied more broadly by the WTO.

Like the TBT Agreement, the SPS Agreement entered into force on 1 January 1995 and all WTO Member States are bound by it. (It is essentially an interpretative tool for Article XX(b) of GATT 1994.)[17] Its primary objective is to clarify the balance struck between the rights of Member States to protect human, animal and plant life or health and the overall objective of the WTO to promote international trade (Article 2). The SPS Agreement seeks to identify mechanisms to distinguish between appropriate measures and measures that are intended or have the effect of restricting international trade unnecessarily. It does so, in part, by separating the interests of the exporting and importing countries. The issue in this context is how far the exporting country has to go to justify the adequacy of its measures and how far the importing country can go in imposing conditions on the exporting country before it has to accept the product.

[14] See GATT 1994, n. 4 above, Annex 4: Plurilateral Trade Agreements: Agreement on Government Procurement, at 438.

[15] For a more detailed assessment of the SPS Agreement, see C. Thorn *et al*., n. 13 above, at 841; J.M. Wagner, 'The WTO's Interpretation of the SPS Agreement has Undermined the Right of Governments to Establish Appropriate Levels of Protection Against Risk', 31:3 *Law and Policy in International Business* (2000), 854; and L. Hughes, 'Limiting the Jurisdiction of Dispute Settlement Panels: The WTO Appellate Body Beef Hormone Decision', 10:3 *Geo. Int'l Envtl. L. Rev.* (1998), 915.

[16] 'Sanitary' measures address food safety issues and 'phytosanitary' measures deal with plant and animal protection.

[17] As such, the SPS Agreement applies only if a trade measure is in some way inconsistent with GATT 1994 rules, most commonly Articles I and III of GATT 1994.

KEY RULINGS WITH ENVIRONMENTAL IMPLICATIONS

The WTO panels and appellate bodies, established to resolve disputes among WTO Member States, are not bound by precedent in the same manner as many domestic courts. Nevertheless, there is every indication from rulings to date that the WTO panels and appeal bodies will consider carefully previous rulings and will make a considerable effort to develop a consistent body of law interpreting the various provisions of the WTO agreements. In the context of the questions raised here, therefore, previous rulings on similar issues are likely to be the best indicators available for predicting how the WTO might deal with disputes involving climate change mitigation measures. The following survey of key decisions is broken into two groups: those decisions made before the establishment of the WTO; and those made under the new WTO rules (after 1994).

There were six panel reports prior to the establishment of the WTO that dealt directly with human health and the environment. They are the Canada–USA dispute on tuna,[18] the Canada–USA dispute on unprocessed herring and salmon,[19] the Thailand–USA dispute over cigarette taxes,[20] two dolphin–tuna disputes involving the USA, Mexico and the European Community,[21] and the Corporate Average Fuel Economy Regulation (CAFE) dispute between the USA and the European Community.[22] In each case, the environmental regulation challenged was found to violate GATT 1994 rules and was found not to be justified under Article XX of GATT 1994.

Perhaps the most relevant pre-WTO rulings are the two dolphin–tuna disputes, given their striking similarities

[18] *United States – Prohibition of Imports of Tuna and Tuna Products from Canada*, adopted on 22 February 1982, BISD 29S/91. The US import prohibition on Canadian tuna was found to violate Article XI(1) of GATT 1947 and not justified under Article XI(2) or Article XX(g).

[19] *Canada – Measures Affecting Exports of Unprocessed Herring and Salmon*, BISD 35S/98 (1988) (*Herring and Salmon Case*). Canadian export restrictions were found to violate Article XI(1) of GATT 1947 and not justified under Article XI(2)(b) or Article XX(g).

[20] *Thailand – Restrictions on Importation of and Internal Taxes on Cigarettes*, BISD 37S/200 (1990). Thailand import restrictions were found to violate Article XI(1) of GATT 1947 and not justified under Article XI(2)(b) or Article XX(g).

[21] *United States – Restrictions on Imports of Tuna*, BISD 39S/155 (1991) and WTO DS 16 June 1994, *United States – Restrictions on Imports of Tuna*, DS29/R (*Tuna–Dolphin Case*). US import prohibitions for tuna were found to violate Article XI(1), were found not to be internal regulations under Article III and were found not to be justified under Article XX(b), (d) or (g).

[22] WTO DS 11 October 1994, *United States – Taxes on Automobiles*, DS31/R. The separate fleet accounting for foreign fleets violated Article III(4) and was not justified under Article XX(b), (d) or (g).

to the two shrimp–turtle rulings discussed below. In the first dolphin–tuna dispute, the Marine Mammal Protection Act of the USA was challenged under Articles III, XI and XIII of GATT 1994. Specifically, Mexico challenged a provision in the Act that prohibited the importation into the USA of yellowfish tuna, which was caught using technology that results in the incidental killing or serious injury of ocean mammals in excess of US standards. The Act essentially prohibited the import of tuna, unless a determination was made that the importing country had measures in place to protect marine mammals that were comparable to those in the USA. The panel concluded that the import restrictions were not internal regulations in accordance with Article III, were inconsistent with Article XI and not saved by Article XX. A similar ruling was made in response to an EU complaint in the second dolphin–tuna dispute. In the process, these decisions seem to close the door on non-product-related process and production methods (PPMs) as a basis for determining that two products are not like products for purposes of Article III of GATT 1994.

Since the conclusion of the Uruguay Round and the establishment of the WTO with its binding dispute-settlement procedure, there have been six key disputes involving environmental issues. The final Appellate Body rulings in each case are briefly reviewed below.

REFORMULATED GASOLINE RULING[23]

This case involved a challenge by Venezuela and Brazil to certain reformulated gasoline regulations passed under the US Clean Air Act. These regulations, intended to reduce air pollution in the USA, required that gasoline sold in the most polluted cities of the USA meet a specific pollution standard (reformulated gasoline standard), and that, in the rest of the USA, gasoline sold had to meet, at a minimum, the same pollution standards as gasoline sold in 1990 (conventional gasoline standard). One of the objectives of the conventional gasoline standard was to prevent producers from blending pollutants removed from the reformulated gasoline into conventional gasoline. To achieve this objective for producers who were not in operation in 1990 (and for importers), a statutory baseline was established in place of the producer-specific 1990 baseline. At the heart of the dispute was the fact that foreign refiners were not permitted to establish individual baselines, rather, they had to rely on baselines established by importers based on their 1990 records, or rely on the statutory baseline imposed by the Clean Air Act.

The claim against the USA was based on the position that the regulations were inconsistent with Article III of GATT 1994 and not covered by the exceptions in Article XX. The panel and the Appellate Body both concluded that the regulations were inconsistent with Article III of GATT 1994, in that it treated importers of gasoline less favourably than domestic producers. The panel concluded that the regulation was not justified under paragraphs (b), (d) and (g) of Article XX.

The Appellate Body found that the baseline rules came under Article XX(g), but were not consistent with the requirements of the chapeau of Article XX, and were therefore inconsistent with GATT 1994 rules. In other words, the Appellate Body concluded that the measures related to the conservation of an exhaustible resource (clean air) and that they were made in conjunction with restrictions on domestic production or consumption, but nevertheless constituted an arbitrary or unjustifiable discrimination, and were therefore not exempt under Article XX. The basis for this conclusion was that domestic producers had the choice to establish their own 1990 baselines or rely on the statutory baseline, whereas foreign producers had to use the statutory baseline or baselines established by importers. Foreign refiners therefore did not have the option of establishing facility-specific baselines.

In drawing the line between the chapeau and paragraph (g), the Appellate Body appears to have drawn a line between purpose and effect. As long as the measure (gasoline baselines) is primarily aimed at the conservation of clean air and does not completely single out importers,[24] it meets the requirements of paragraph (g). In order to be exempt under Article XX as a whole, however, the measure also has to meet the test in the chapeau of not arbitrarily or unjustifiably discriminating between domestic and foreign products.[25] The discrimination in this case was found to be unjustifiable because the objective of conserving clean air could have been achieved to the same standard without discriminating against foreign producers.[26] In essence, the USA was unable to convince the Appellate Body that it had valid reasons for not either applying a statutory baseline to all producers or allowing all producers to establish individual baselines.

[23] WTO AB 20 May 1996, *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS/9, WT/DS2/AB/R (AB-1996-1) (*Reformulated Gasoline Case*).

[24] Ibid., at 19. This was found to mean there had to be an element of even handedness but not identical treatment of domestic and foreign producers. In the case of the reformulated gasoline standards, there were restrictions on both domestic and foreign producers, and this was found to be sufficient to meet this part of para. (g) of Article XX.

[25] Ibid., at 20.

[26] Ibid., at 21. The Appellate Body set out three prohibitions in the chapeau for the application of the exemptions in Article XX: (1) arbitrary discrimination; (2) unjustifiable discrimination; and (3) disguised restriction on international trade. For a detailed critique of this ruling, see R. Quick *et al.*, 'An Appraisal and Criticism of the Ruling in the WTO Hormone Case', 2:3 *Journal of International Economic Law* (1999), 603.

BEEF HORMONE RULING[27]

In this case, Canada and the USA claimed that measures by the European Community to prohibit the importation of meat and meat products from cattle treated with certain hormones violated GATT 1994 rules, specifically Articles 3(1), 5(1) and 5(5) of the SPS Agreement. The panel concluded that the import ban violated Article 3, in that it was not based on an international standard. It also agreed with Canada and the USA that the import ban was in contravention of Article 5(1) of the SPS Agreement in that it was not based on a risk assessment. It also held that the ban was in violation of Article 5(5) in that it adopted arbitrary or unjustifiable distinctions in the levels of sanitary protection applied in different situations.

The Appellate Body overturned the panel decision on Article 3(1), holding that countries are entitled to set their own standards higher than international standards. It also overturned the panel's conclusion that the measures were arbitrary and unjustifiable under Article 5(5). It nevertheless found that the EU standard violated Article 5(1) in that it was not based on a risk assessment. Specifically, it concluded that the measure was not objectively or rationally connected to the risk identified.

The basis for the decision of the Appellate Body was that the scientific evidence supported a risk only in case of misapplication of a hormone, whereas the risk assessment was conducted only based on appropriate application. It therefore concluded that the risk of inappropriate application of hormones was not subjected to an appropriate risk assessment, and that the measure was furthermore not designed to prevent inappropriate applications but prevented all applications.[28] The measures were therefore found to be in violation of Articles 5(1) and 3(3) of the SPS Agreement. While indicating that the violation of Article 5(1) implied a violation of the more general Article 2(2), the Appellate Body, applying the principle of judicial economy, declined to specifically rule on whether the measure was in violation of Article 2(2). In the process, it has become clear that Article 5(1) sets out a substantive, not just a procedural, obligation to justify the measure through risk assessment. While stressing that such an assessment does not have to be based on scientific proof, the Appellate Body in this case did not accept the scientific evidence presented in support of the SPS measure. Through these findings, the Appellate Body has positioned itself as the final arbiter of scientific evidence presented to justify a given SPS measure.[29]

Finally, the Appellate Body concluded that the burden of proof, at least initially, rests on the complaining party to establish a *prima facie* case of a violation of the SPS Agreement. If the complaining party makes out a *prima facie* case, the burden then shifts to the party whose measures are being challenged to demonstrate that they are consistent with applicable WTO rules.

SHRIMP–TURTLE RULING (NO 1)[30]

Under the US Endangered Species Act, US shrimp trawlers are required to use 'turtle excluder devices' (TEDs) in their shrimp nets when fishing in areas that are likely to be turtle habitat. In 1989, the USA passed further laws to restrict the importation of shrimp and shrimp products only from States that have comparable regulations in place or demonstrate that their fishing practices do not pose a threat to turtles. In practice, exporting countries had to demonstrate the use of TEDs in order to be certified to import into the USA under this law.

India, Malaysia, Pakistan and Thailand challenged this certification requirement under Articles I, III and XI of GATT 1994. The panel concluded that the certification requirement violated Article XI of GATT 1994 and was not justified under Article XX. The Appellate Body reached the same conclusion on different grounds and in the process followed the reformulated gasoline decision in its interpretation of Article XX.[31] It concluded that, while the measure to protect turtles was provisionally justified under Article XX(g),[32] it did not meet the conditions set out in the chapeau of Article XX[33] and was therefore not exempt under Article XX. In so doing, it continued a trend of interpreting provisions (a)–(g) of Article XX broadly, but applying more strictly the test of 'arbitrary or unjustifiable discrimination', where the same conditions apply and act as a 'disguised restriction on international trade'. In the process, a distinction was drawn between the provisional validity of the measure itself and the 'trade fairness' of its application. In its decision, the Appellate Body went to great length to affirm the rights of Member States to adopt effective measures to protect the environment,

[27] WTO AB 16 January 1998, *European Communities – Measures Affecting Meat and Meat Products*, WT/DS26/R/USA, WT/DS26/AB/R, WT/DS48/R/CAN, WT/DS48/AB/R (AB-1997-4). For a detailed critique of this ruling, see R. Quick *et al.*, n. 26 above; K.A. Ambrose, 'Science and the WTO', 31:3 *Law and Policy in International Business* (2000), 861; R. Neugebauer, 'Fine-Tuning WTO Jurisprudence and the SPS Agreement: Lessons from the Beef Hormone Case', 31:4 *Law and Policy in International Business* (2000), 1255.

[28] *European Communities – Measures Affecting Meat and Meat Products*, n. 27 above, DS48/AB ruling, at para. 113.

[29] For a more detailed discussion of opposing views on the relationship between science, precaution and risk assessment under the SPS Agreement, see J.M. Wagner, n. 15 above, at 857; K.A. Ambrose, n. 27 above, at 861; L. Hughes, n. 15 above, at 915.

[30] See Shrimp–Turtle Ruling (No 1), n. 10 above.

[31] Ibid., at para. 118.

[32] Ibid., at paras 128–145.

[33] Ibid., at paras 146–186.

and that the decision was about how the turtles were protected, not whether they should or could be protected.[34]

SHRIMP–TURTLE RULING (NO 2)[35]

At the conclusion of the first round of rulings on the shrimp–turtle dispute, the Dispute Settlement Body made certain recommendations on measures to be taken by the USA to come into compliance with GATT 1994 rules as they applied to its regulation of shrimp products. In response, the USA did not change the applicable law, but changed its application. Specifically, it developed criteria for the certification of foreign harvesting nations aimed at ensuring that foreign shrimp products were treated in accordance with GATT 1994 rules and the US objective of protecting turtle populations was still met. A second challenge was brought by a number of shrimp-exporting countries. They argued that the new requirement amounted to an obligation to demonstrate that measures in an importing country were 'comparable in effect' to the TEDs, rather than to require the use of TEDs.

The Appellate Body in the Shrimp–Turtle Ruling (No 2) upheld the new rules as consistent with Article XX of GATT 1994, essentially concluding that the change to 'comparable in effect' removed the violation of the chapeau of Article XX.[36] In the process, the Appellate Body considered the obligation on the USA to pursue international cooperation in the protection of turtles and the level of flexibility required for the revised rules to meet the requirements set out in the chapeau of Article XX. On the first issue, the Appellate Body confirmed that negotiation in good faith is sufficient and that there is no obligation to conclude an agreement. What the USA had to do, and did in this case, was to provide all exporting countries with similar opportunities to conclude an agreement. With respect to the flexibility of the new rules, the Appellate Body concluded that the test of 'comparable effectiveness' provided sufficient flexibility to take into account special circumstances in the exporting country, while providing the necessary assurance to the importing country that its environmental objective could still be met.[37]

AUSTRALIAN SALMON RULING[38]

This dispute involved a challenge by Canada regarding salmon import prohibitions imposed by Australia. The regulations related to certain treatment requirements for the import of fresh salmon products.[39] In order to prevent the introduction of any infectious or contagious diseases, the Director of Quarantine had to approve of the importation of any fresh fish products before they were permitted. In response to a request to allow the importation of fresh salmon, the Director exercised this discretion to prohibit the importation. Both the panel and the Appellate Body concluded that the requirements were in violation of Articles 2 and 5 of the SPS Agreement, as Australia had failed to justify the requirements on the basis of available scientific evidence. The Appellate Body further concluded that the measure was not based on a risk assessment within the meaning of Article 5(1) of the SPS Agreement.[40] Consistent with the beef hormone dispute, the focus was on Article 5(1), and the violation of Article 2(2) was seen to arise from the violation of the more specific obligation in Article 5(1). The Appellate Body confirmed that countries can determine their own acceptable level of protection, including a level of protection based on zero risk, and that the appropriateness of the measure is to be considered in light of the level of protection chosen. This, however, does not absolve a party from basing its measures to achieve this level of protection on a risk assessment.[41] Finally, the Appellate Body confirmed and applied the burden of proof requirements set out in the beef hormone ruling discussed above.

JAPAN AGRICULTURE RULING[42]

In this case, the USA challenged regulations passed by Japan to prohibit the importation of certain agricultural products that failed to comply with Japan's quarantine measures. The panel concluded that Japan's measures were inconsistent with Articles 2(2) and 5(6) of the SPS Agreement. The Appellate Body upheld the panel's finding based on the conclusion that the quarantine requirement was maintained without sufficient scientific evidence within the meaning of Article 2(2) of

[34] Ibid., at paras 185–186.

[35] WTO AB 12 October 1998, *United States – Import Prohibition of Certain Shrimp and Shrimp Products, Recourse to Article 21.5 of the DSU by Malaysia*, WT/DS58/AB/RW (AB-2001-4) (Shrimp–Turtle Ruling (No 2)). As discussed below, this ruling is limited to the implementation of the Shrimp–Turtle Ruling (No 1).

[36] Ibid., at paras 111–152.

[37] Ibid., at para. 146. The revised guidelines specifically reference that any demonstrable differences will be taken into account.

[38] WTO AB 20 October 1998, *Australia – Measures Affecting Importation of Salmon*, WT/DS18/R, WT/DS18/AB/R (AB-1998-5).

[39] Ibid. The issue was essentially one of whether the treatment of fresh salmon with heat amounts to an import prohibition of fresh salmon, or whether it amounts to a treatment requirement. Given that the requirement for heat treatment changed the salmon from fresh to cooked salmon, the Appellate Body concluded that the requirement amounted to an import prohibition. This import prohibition was found not to be based on any risk assessment and therefore in violation of the SPS Agreement.

[40] Ibid.; see para. 121 for criteria for risk assessment under Article 5(1).

[41] Ibid.; see para. 125.

[42] WTO AB 22 February 1999, *Japan – Measures Affecting Agricultural Products*, WT/DS76/R, WT/DS76/AB/R (AB-1998-8).

the SPS Agreement, and was furthermore inconsistent with Article 5(7) as a temporary measure. The ruling in this dispute failed to follow the precedent set in the beef hormone and Australian salmon disputes by deciding, for the first time, that a measure is in violation of Article 2(2) on its own, without relying on the violation of Article 5(1) as the basis for this conclusion. It concluded that while Article 5(1) may be seen as a specific application of the basic obligation set out in Article 2(2), this did not mean that the two provisions had to be considered together in all cases.[43]

ASBESTOS RULING[44]

This dispute arose out of certain measures imposed by France to prohibit the importation and sale of certain types of asbestos and asbestos products in France. Canada, an exporter of asbestos, challenged these measures under the TBT Agreement and under Article III of GATT 1994. The panel concluded that the regulations in question did not constitute a technical regulation. It therefore found that the TBT Agreement did not apply. The panel further concluded that asbestos and cement-based products were 'like products' under Article III and that France violated Article III of GATT 1994 in prohibiting the importation of asbestos. However, the panel found that the measures in question were saved under Article XX(b) of GATT 1994 as necessary to protect human health or life. On appeal, the Appellate Body held that the TBT Agreement applied, as the measures in question were a technical regulation.

The Appellate Body applied the following test for determining whether two products are 'like products':

- the physical properties of the products;
- the extent to which the products are capable of serving the same or similar end uses;
- the extent to which consumers perceive and treat the products as alternative means of performing particular functions in order to satisfy a particular want or demand; and
- the international classification of the product for tariff purposes.[45]

It disagreed with the panel in its interpretation of Article III of GATT 1994 and concluded that, in considering likeness of products, France was entitled to take into account the health risk associated with products containing asbestos, and was not limited to considering the nature and quality of the product itself.

The Appellate Body concluded that all relevant evidence of likeness or differences between products must be considered. In this case, it concluded that the health risk associated with the asbestos-based product was relevant. This led to the conclusion that Canada had failed to show that the products were like products, in that it failed to respond to evidence that the health risk associated with the asbestos product resulted in it having different physical properties and different consumer tastes and habits. The Appellate Body left open the possibility that the four criteria or characteristics can be added to, and made no final determination that differences considered under Article III must fall under these categories.[46]

SARDINES RULING[47]

Peru, supported by a number of other countries, challenged certain EC regulations dealing with the marketing of certain fish products, specifically products to be marketed as 'preserved sardines'. The EC regulations accepted only one local species of sardines for the purposes of its labelling regulations, whereas the Codex Alimentarius covers 21 fish species.[48] The panel concluded that the labelling restriction violated Article 2(4) of the TBT Agreement on the basis that it was an ineffective or inappropriate means of fulfilling the legitimate objectives of the EC regulations.

The Appellate Body considered a number of significant issues in its review of the panel ruling. As a starting point, it confirmed its three-point test in its reasons in the asbestos ruling[49] of the definition of 'technical regulation' in the TBT Agreement:

- the document must apply to an identifiable product or group of products;
- the document must lay down one or more characteristics of the product;
- compliance with the product characteristic must be mandatory.[50]

Furthermore, the Appellate Body ruled that an international standard does not have to be adopted by consensus in order to meet the definition of a standard under Annex 1(2) of the TBT Agreement. In other words, a standard can be used for the purposes of the TBT

[43] Ibid., at para. 82.
[44] WTO AB 12 March 2001, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, WT/DS135/R, WT/DS135/AB/R (AB-2000-11) (*Asbestos Case*).
[45] Ibid., at para. 101.
[46] Ibid., at para. 117. In the context of climate change, there are at least two issues to consider. Can the environmental impact of producing the product become an additional factor to be considered? Would consumer preference for products that are climate change friendly in their production qualify as differences in whether consumers are 'willing to use these products to perform these functions'?
[47] WTO AB 26 September 2002, *European Communities – Trade Description of Sardines*, WT/DS231/R, WT/DS231/AB/R (AB-2002-3) (*Sardines Case*).
[48] Ibid., at paras 5 and 6.
[49] See *Asbestos Case*, n. 44 above, at paras 66–70.
[50] See *Sardines Case*, n. 47 above, at para. 176.

Agreement even though the party, against which it is being applied, objected to the standard when it was developed.[51]

Finally, the Appellate Body concluded that Peru had met its burden of demonstrating that the international standard was an effective and appropriate means of fulfilling the legitimate objective of the EC regulation. On this basis, it concluded that the European Community was not entitled to develop its own standard under the provisions of the TBT Agreement.

LEGAL ISSUES ON THE WTO AND CLIMATE CHANGE MEASURES

ARE PRODUCTS WITH DIFFERING CLIMATE CHANGE IMPACTS 'LIKE PRODUCTS' UNDER GATT 1994 RULES (ARTICLES I AND III)?

Article I of GATT 1994 (often referred to as the 'most favoured nation' clause) is one of the core provisions of GATT 1994. It essentially requires Member States of the WTO to treat products from any Member State in an equivalent manner to the best treatment afforded 'like products' when imported from any other State, or to treat every Member State as it treats a 'most favoured nation' on a product-by-product basis. Article III further applies this concept by requiring States to treat like products from Member States no less favourably than domestic products (often referred to as the 'national treatment' clause).[52]

In the context of climate change, this raises the question of what constitutes like products, given that the requirements of Articles I and III only apply to like products. In other words, if two products that a State wants to treat differently for climate change policy reasons are not considered like products, Articles I and III do not limit a State's right to treat the products differently. If the two products are considered to be 'like', Articles I and III apply to limit the right of a State with respect to the relative treatment of the two products.

In considering the issue of like products, it may be useful to consider several different scenarios relevant to the implementation of climate change policy and measures by way of example:[53]

1. two products have the same physical characteristics and same applications once produced, but have different levels of GHG emissions associated with production because of differences in energy efficiency of production methods (i.e. two cars, one built with all virgin material, the other with 50% recycled content, or some other more energy-efficient production method);
2. two products have the same physical characteristics and same applications once produced, but have different levels of GHG emissions associated with production because of differences in energy sources available to the producer (i.e. one production facility uses electricity from coal, the other from wind and solar);
3. two products serve the same application once produced, but the physical characteristics are sufficiently different resulting in different GHG emissions from disposal of the product after use (i.e. one car manufactured with 100% recyclable or reusable content, the other essentially requires complete disposal);
4. two products serve the same purpose and have the same general characteristics, but have different GHG emissions associated with their use (i.e. fuel efficiency differences for cars, or differences between petrol, hybrid and fuel-cell cars);
5. two products serve the same ultimate purpose, but achieve that purpose in a different manner. (i.e. cars versus buses, bikes, trains, etc.).

In each of these scenarios, there is one product that has relatively low GHG emissions associated with its life cycle and another with higher GHG emissions. The two products are either offered for import from different exporting States (Article 1), or the low GHG emission product is a product produced domestically and the high GHG emission product is an import. In either case, if the two products serve the same ultimate

[51] Ibid., at para. 227. This principle is potentially important in the context of whether any standards developed under the climate change regime, such as emission-reduction commitments under the Kyoto Protocol, have relevance under the trade rules of the WTO. Note that in the context of the TBT Agreement itself, the question of the applicability of the international standard is linked to the further test of whether the standard is an effective or appropriate means for the fulfilment of a legitimate objective pursued, allowing parties in circumstances where the international standard is not sufficient, to go beyond the international standard.

[52] For a general overview of the application of the GATT 1994 rules in an environmental context, see C. Wofford, 'A Greener Future at the WTO: The Refinement of WTO Jurisprudence on Environmental Exceptions to GATT', 24:2 *Harv. Envtl. L. Rev.* (2000), 563.

[53] In terms of existing cases, the shrimp–turtle and asbestos rulings probably come closest to dealing with similar fact situations, but the five scenarios proposed here offer more subtle differences than those explored in any of the cases to date. While the asbestos ruling, for example, deals generally with the distinction between fitness for the intended purpose and the question of likeness of products, and introduces the idea that differences in health risks can be a factor in determining that products are not alike, the decision does not draw the distinctions between impacts at the production, consumption and disposal stages of the life cycle of the product.

purpose, a State trying to implement effective policies and measures to address climate change will have to consider whether Article I imposes any restrictions on its ability to treat the two products differently so as to allow it to require or encourage the import, production and use of the low GHG emission product within its territory. The question for each scenario is therefore whether a State can take measures to favour the low GHG emission product over the high GHG emission product without violating Articles I and III.

Under scenario 1, the difference between the two products for purposes of this analysis is the energy efficiency of the production of the product. Beyond this, the two products are identical, including in their physical characteristics and function (PPMs). This means the difference relates to something that arises from the process and production of the product, but is not reflected in the final product in any tangible way.

The climate change concerns are twofold. First, given the global nature of the problem, a State cannot prevent climate change within its own territory in isolation. This means a State concerned about climate change has a legitimate stake in the GHG emissions from the production in another State of a product that is imported into its territory. Second, if the lower GHG emissions are achieved at an additional cost, treating the two products the same will result in a competitive advantage for the product with the higher GHG emissions, resulting in a disincentive for producers to achieve lower GHG emissions in producing the product, regardless of whether the producer operates domestically within a State or in an exporting State.

On the surface, the two pre-WTO *Tuna–Dolphin Cases*[54] seem to close the door on considering PPMs under Articles I and III in the context of like products. These cases specifically reject the argument that PPMs can form the basis for a conclusion that two products are not like products for purposes of Article III. The pre-WTO Canada–USA dispute on salmon and herring[55] considered PPMs to be valid for the purposes of Article XX exceptions, but did not consider the threshold question of whether differences in PPMs can exclude products from the application of Articles I and III in the first place. In the shrimp–turtle dispute, the measure to protect turtles was found to violate Article XI. As a result, the Appellate Body declined to consider whether the shrimp caught with different impact on turtles would be considered to be like products under Articles I and III. With the general recognition that PPMs received in the shrimp–turtle rulings, the role of PPMs in assessing whether products are like products must now be considered an open question. On the one hand, the shrimp–turtle ruling marks a clear departure from the approach in the tuna–dolphin ruling, with respect to PPMs in general and in the context of Article XX in particular; on the other hand, there is no ruling, to date, that explicitly accepts a PPM as a basis for a finding that two products are not like products under Article I or III.

There is one other WTO ruling that sheds some light on how this issue may be addressed in the future: the ruling of the Appellate Body in the asbestos dispute.[56] As a starting point, the Appellate Body applied a number of criteria in considering the likeness of two products, including consumer tastes and habits (or perceptions and behaviour) with respect to the product.[57] The test in that case was then applied to asbestos products to conclude that otherwise like products, one containing asbestos, the other not, were not considered like products for the purposes of Article III, based on the health risk associated with the product. Depending on the level of consumer interest in addressing climate change on the one hand, and the link between the PPM, and environmental and human health impacts of climate change on the other hand, it would seem reasonable to conclude that a similar argument could be made for products that differ in their GHG emissions from production.

Scenario 2 is essentially identical to scenario 1, in that it identifies a non-product-related PPM. The only difference is that its focus is on sources of energy with different levels of GHG emissions, rather than on energy efficiency. There is no basis in GATT 1994 provisions or WTO rulings, to date, to conclude that scenario 2 would be treated differently under Article I or III than under scenario1.

Under scenario 3, the difference is again in the PPMs, but this time the difference is reflected in the product. In this context, the difference, while not affecting the application and use of the product, does affect the GHG emissions from disposal. This type of difference in production method is referred to as product-related PPMs. While the distinction may be relevant from a climate change policies and measures perspective, and may have some influence over the treatment of PPMs in the context of the issue of like products in Articles I and III, in the absence of any rulings on point it is difficult to predict how the distinctions among the first three scenarios may impact on future WTO tribunal rulings. It seems reasonable, however, to conclude that there is likely to be more comfort with a submission that two products are not like products on the basis of product-related PPMs than in the case of non-product-related PPMs.

[54] See *Tuna–Dolphin Case*, n. 21 above.
[55] See *Herring and Salmon Case*, n. 19 above.
[56] See *Asbestos Case*, n. 44 above.
[57] Ibid., at para. 101.

Under scenario 4, the difference is not in the PPM but in the GHG emissions from the use of the product. The products are not functionally different, in that both provide the same means of transportation, but they have different GHG emissions associated with their use. Under this scenario, the reasoning in the asbestos decision would appear to apply directly, resulting in a finding that the two products are not like products, given their difference in energy efficiency, the operational costs associated with the difference in efficiency, and the established difference in consumer tastes and habits with respect to the energy efficiency of vehicles. In considering the application of the asbestos Appellate Body ruling, it is important to keep in mind that the ruling stresses the need to examine all the evidence related to all the criteria established for the likeness test, and to reach a balanced overall conclusion based on this examination.[58]

Under scenario 5, the products are functionally different. These products would clearly not be considered like products under Article 1. Member States are therefore not limited by Article 1 of GATT 1994 in their treatment of these products relative to each other, in that the requirement to treat like products alike would not apply in this scenario.

Based on the provisions of Articles I and III of GATT 1994 and relevant interpretations in recent rulings, it is fair to conclude that while PPMs have, to date, not been recognized as a basis for distinguishing between goods for the purposes of Articles I and III, under at least some of the scenarios outlined, a finding that products are not like products based on their different climate change impacts would appear to be a reasonable application of the principles advanced in recent WTO rulings. In other words, depending on the circumstances, countries may very well be able to justify differential treatment of goods purely based on the climate change impact from PPMs, in some circumstances, even on the basis that the products are not alike due to their different climate change impacts.

ARE MEASURES TO REQUIRE PRODUCTS TO MEET A SPECIfiC GHG OR ENERGY STANDARD TECHNICAL BARRIERS TO TRADE IN VIOLATION OF ARTICLES I AND III OF GATT 1994?

At this stage of the analysis, it is assumed that two products are considered like products for the purposes of Articles I and III. The question then becomes whether two products are being treated differently by an importing Member State. In the case of Article I, the question is whether two products from two different countries are being treated differently by the importing country. Under Article III, the issue is whether the importing country treats imports differently than domestic products.[59]

As a starting point, it seems likely that measures that States might consider to reduce GHG emissions from the production, transportation, use or disposal of a product would be considered to be a technical regulation[60] or standard under the TBT Agreement.[61] Assuming, therefore, that the TBT Agreement applies, it is important to note that under the agreement, there is a presumption of consistency with Articles I and III of GATT 1994 in cases where a State relies on an international standard in developing its technical regulation.[62]

This raises the question of the role of the Kyoto Protocol and the UNFCCC in providing an international standard to create this presumption.[63] In short, it is difficult to see how the requirements under the UNFCCC or Kyoto Protocol can be used directly to support any specific measure to reduce the GHG emissions associated with the production, transportation, use or disposal of a product. Neither agreement directs States at a sufficient level of detail on how parties are to meet the overall GHG emission-reduction targets to enable a State to make a convincing case that its technical regulation is 'in accordance with relevant international standards' as required for the presumption in Article 2(5) of the TBT Agreement. For one thing, it will be impossible to determine in isolation whether a specific measure on a specific product is implemented to comply with the Kyoto Protocol, especially given the many ways countries can meet their obligations, including making use of the Kyoto Protocol's flexible mechanisms in deciding how

[58] Ibid., at para. 102.

[59] Note that there are other restrictions on a Member State's ability to pass technical regulations, such as Article XI on quantitative restrictions. For the purposes of this analysis, however, the focus will be on Articles I and III as they provide the foundation for GATT 1994 and are the provisions most likely to be applied in a climate change context.

[60] Technical regulation is defined in Annex I of the TBT Agreement as follows: 'Document which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method'. See TBT Agreement, n. 5 above.

[61] Ibid., Article 1.

[62] Ibid., Article 2(5).

[63] For a good general discussion of the role of international environmental standards in trade disputes, see W.M. Donahue, 'Equivalence: Not Quite Close Enough for the International Harmonization of Environmental Standards', 30:2 *Envtl. L.* (2000), 363.

much each sector of their society is to contribute to a reduction target.[64]

The next issue to be considered here is the existence of specific links between the WTO and the climate change regime. As indicated above, the Kyoto Protocol requires that parties implement it in such a manner as to minimize effects on international trade.[65] A likely and reasonable interpretation of these provisions would be that they generally propose a requirement for measures to be consistent with the trade rules of the WTO, given that the WTO is the international body tasked with minimizing barriers to international trade. It is therefore not likely that the provisions of the UNFCCC and the Kyoto Protocol will have a significant influence over whether GHG emission-reduction measures will be upheld under the TBT Agreement and Articles I and III of GATT 1994.

It is difficult to predict how the general requirement under Articles I and III, to treat foreign products from different countries in the same or equivalent manner to each other and to domestic products, will be applied to GHG emission-reduction measures, without knowing the specifics of the measures considered. We can consider the parameters within which the WTO is likely to operate in considering measure-specific cases. One interesting issue in this regard is whether a GHG emissions limit or an energy intensity limit would be more likely to be upheld under Articles I and III and the TBT Agreement. Clearly, a limit on GHG emissions is more directly linked to the objective of preventing climate change. On the other hand, a target based on GHG emissions in the production of a given product would treat products differently simply based on the energy sources available in that country.

The problem this might create is that some low emitting sources of energy, such as geothermal, solar, wind, tidal and hydropower, may simply not be available in some countries, whereas they may be abundant in others. It would then, in effect, treat products differently based on the energy sources of the State producing the product. An energy intensity limit, on the other hand, would focus on energy efficiency, but would not deal with the need to switch to less GHG emitting energy sources, thus providing a partial solution only to the climate change problem.

One hint of how the WTO Appellate Body might deal with this issue can be found in its Shrimp–Turtle Ruling (No 2). In that case, the Appellate Body noted the importance of the USA taking into account the specific conditions of Malaysian shrimp production in the way it chose to implement the requirement to protect turtles from the adverse impacts of the shrimp fishery.[66] This would suggest that the availability of energy sources may become a factor in deciding whether a technical regulation that sets a GHG emission standard is upheld under Article XX.[67]

Beyond this general issue of GHG versus energy intensity requirements on products, the provisions of the TBT Agreement offer the following substantive direction on how to design technical regulations in accordance with GATT 1994 and TBT Agreement rules:

- Member States have a general obligation to ensure that technical regulations do not have the effect of treating products imported from one country less favourable than like products from another country or domestic products.[68] This is essentially a restatement of Articles I and III of GATT 1994.
- Technical regulations shall not have the purpose or effect of creating unnecessary obstacles to international trade.[69] It would appear that technical regulations can be challenged both in terms of purpose and effect. The subjective nature of any challenge based on the purpose of a technical regulation that has the effect of meeting a legitimate objective makes it difficult to see how a challenge of the purpose of the technical regulation can be a constructive part of the analysis. The effects-based analysis should therefore be considered in most cases to be the more appropriate test in deciding on the legitimacy of technical regulations under Article 2(2).
- Technical regulations shall not be more trade restrictive than necessary to fulfil a legitimate objective. Human health and safety, animal or plant life or health and the environment are considered legitimate objectives in this regard.[70] What will be interesting in this context is whether the WTO will look at the legitimate objective on a product-by-product basis, or more generally. If done on a product-by-product basis, the WTO would accept the Member State's sovereignty to decide to reduce GHG emissions through the production, transportation, use and disposal of that particular product, and would focus on whether the technical regulation in question is the least trade-restrictive way of reducing those emissions. The alternative would require the WTO

[64] The UNFCCC creates similar challenges, in that the objectives of the convention are so broad and general that it is difficult to say what the standard is other than the general commitment to reduce global emissions to safe levels.
[65] Kyoto Protocol, n. 8 above, Article 2(3); see also the section headed 'Treatment of Trade Issues under the UNFCCC and the Kyoto Protocol' above.
[66] See Shrimp–Turtle Ruing (No 2), n. 35 above, at para. 146.
[67] The process of determining whether an exception under Article XX applies is discussed in the next section below.
[68] See TBT Agreement, n. 5 above, Article 2(1).
[69] Ibid., Article 2(2).
[70] Ibid.; these legitimate objectives are directly connected to the exceptions in Article XX of GATT 1994 and are discussed below in the next section.

to consider whether reducing GHG emissions in the life cycle of the particular product in question is the most effective and least trade-restrictive way for the Member State to reduce its GHG emissions, or whether the emission reduction should take place in another sector, where the impact on international trade would be less. Any attempt to take the latter approach would severely limit a State's ability to achieve GHG emission reductions and would likely be seen as interference with the domestic policies of that State.[71]

- There is reference in Article 2(2) to the need to consider the risk involved in not meeting the stated objective, suggesting a risk assessment approach. Specifically, Article 2(2) proposes that the risk be assessed considering available scientific and technical information, related processing technology or intended end uses of products. It is not as clear as in the SPS Agreement that a member can determine its own level of risk, but the language of the TBT Agreement does support a risk assessment approach.[72] In the context of climate change, it is difficult to see how a risk assessment approach would be applied, given that the risk is one that is based on global emissions over years and decades. Perhaps the best practical approach to this in the context of climate change would be that countries are free to determine their own GHG emission or energy targets on a product-by-product basis, and that the analysis under the TBT Agreement should focus on whether that product-specific target is implemented in the least trade-restrictive manner.
- There is strong language to require Member States to rely on international standards wherever they can be used to meet the legitimate objective of the Member State, and to accept the standards of other Member States whenever those standards adequately fulfil the objectives of the Member States' own regulations.[73] The issue of international standards was most recently considered in the sardines ruling.[74] The standard, in that case, was a product-based standard, where the issues related to what level of acceptance for the standard was required and whether the standard applied to the particular product in question. In the context of climate change, there are no clear product-based standards. As they are developed, it will be interesting to see whether States will be successful in taking the position that these standards are insufficient to allow them to meet their objectives in terms of overall GHG emission reductions in their countries. In the meantime, neither the UNFCCC nor the Kyoto Protocol includes anything that could be considered a product-based standard. It would therefore be reasonable to conclude that whether a product-based measure is linked to compliance with the Kyoto Protocol may have little or no impact on its treatment under the WTO regime.
- Member States are encouraged to develop performance-based standards rather than design specific standards.[75] In the context of transportation scenarios, this may become a question of whether the technical regulation requires cars to be hybrids or fuel-cell vehicles, or whether the standard is a fuel-efficiency standard. Article 2(8) clearly suggests that fuel-efficiency standards might be easier to justify under the TBT Agreement; however, if a petrol-driven vehicle and a fuel-cell vehicle are not considered like products under Articles I and III of GATT 1994, there would be no requirement under the TBT Agreement or GATT 1994 to treat the two products the same, and, therefore, the issue of compliance with Article 2(8) of the TBT Agreement would not arise.

ARE TECHNICAL REGULATIONS THAT REQUIRE PRODUCTS TO MEET A CERTAIN GHG OR ENERGY STANDARD SAVED BY ARTICLE XX?

In this section, a *prima facie* violation of Articles I or III is assumed, and the application of the exceptions under Article XX is considered in this context. Article XX provides for certain circumstances where technical regulations, which treat like products from different countries differently,[76] may nevertheless be permitted under GATT 1994. In theory, Article XX has to be considered in connection with the TBT Agreement because it also lists legitimate objectives of technical regulations.[77] From a practical perspective, Article XX would appear to be more specific, and cases dealing with the

[71] A good indication of this reluctance to have to account for decisions at this level were the negotiations on compliance under the Kyoto Protocol, where there was strong resistance by many States to international direction on policies and measures needed to bring countries who failed to meet their targets back into compliance. At the Sixth Conference of the Parties in the Hague, for example, a proposal that was put forward by some countries to require a compliance action plan to be approved by the enforcement branch of the compliance body was rejected as an invasion of State sovereignty.

[72] See TBT Agreement, n. 5 above, Article 2(2). Legitimate objectives listed include human health, animal or plant life or health and the environment.

[73] Ibid., Article 2(4), 2(5), 2(6) and 2(7).

[74] See *Sardines Case*, n. 47 above, at para. 110, where the Appellate Body concluded on the issue of when a measure is based on an international standard that 'there must be a very strong and very close relationship between two things in order to be able to say that one is the basis for the other'. It does not appear that anything in the current climate change regime would meet this test in the context of a product-specific measure.

[75] See TBT Agreement, n. 5 above, Article 2(8).

[76] This refers to either products from two or more different importing countries or imported versus domestic products; see Articles I and III of GATT 1994.

[77] See TBT Agreement, n. 5 above, Article 2(2). Human health and safety, animal or plant life or health and the environment are considered legitimate objectives in this regard.

question of legitimate objective or exception under Article XX have made little reference to the TBT Agreement. It would appear, therefore, that the provisions of Article XX are likely to be determinative when faced with the question whether technical regulations, which are *prima facie* in violation of Articles I and III because they treat like products differently, are saved by the legitimate objective they serve.[78]

Article XX consists of a chapeau and a list of specific exceptions to the requirement to treat like products alike. The specific exceptions of interest in the context of climate change are (b) and (g), referring to measures 'to protect human, animal or plant life or heath' and measures 'relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption'.[79] The application of these two exceptions is limited in the chapeau by requiring that the measures not be applied so as to constitute 'a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail' or constituted 'a disguised restriction on international trade'.[80]

Through the rulings of the Appellate Body in the reformulated gasoline and shrimp–turtle decisions, a two-step test has been developed for the application of Article XX. First, the measure needs to be provisionally justified under one of the exceptions of Article XX. If it is not, the analysis ends here and the measure is not saved under Article XX. If the measure is provisionally justified under one of the exceptions, it then has to pass the tests of not being 'arbitrary discrimination', 'unjustifiable discrimination' or a 'disguised restriction on international trade' in order to be saved by Article XX. The decisions of the Appellate Body in the reformulated gasoline and shrimp–turtle rulings suggest a fairly generous application of (b) and (g) of Article XX, and a focus on the chapeau in weighing the utility of the measure against its trade restrictiveness.[81]

In the context of the Reformulated Gasoline Ruling, the Appellate Body concluded that the measure to reduce pollution from gasoline was provisionally consistent with Article XX(g). In the process, it extended the concept of 'exhaustible natural resource' to 'air'. By not allowing foreign producers to establish baselines in an equivalent manner as domestic producers, the Appellate Body then concluded that the measure amounted to 'unjustifiable discrimination' and was therefore not consistent with the chapeau of Article XX.

Similarly, in Shrimp–Turtle Ruling (No 1), the Appellate Body ruled that the measure to protect turtles was provisionally consistent with Article XX(g). In the process, the Appellate Body accepted the objective of preventing an extra-territorial environmental impact[82] as a legitimate basis for an exception under Article XX(g). However, by requiring importing countries to protect turtles in the same manner as required in the USA, the Appellate Body concluded, the measure was applied in a manner that violated the chapeau. The basis for this conclusion was that the requirement to meet the objective in the 'same' manner rather than in a 'comparable' manner was unjustifiable.[83]

Applying this analysis to climate change, given the threat to human health, forests, agriculture and biodiversity more generally, it must be considered likely that any measure to reduce GHG emissions will be found to be provisionally consistent with Article XX(b) and (g) of GATT 1994. The only real issue under Article XX should therefore be whether the measure is designed and implemented in such a manner that it does not discriminate arbitrarily or unjustifiably, and is not a disguised restriction on international trade. This could become a matter of comparing the measure to alternatives that could have achieved the same

[78] It is worth noting that it is less than clear from the TBT Agreement or environmental rulings to date whether the TBT Agreement's focus is on Articles I and III, or whether it was intended to elaborate also on the application of Article XX. From the environmental rulings reviewed here, it would appear that its application does not extend to Article XX, and that the latter therefore stands on its own.

[79] It is important to note that in the Reformulated Gasoline Ruling, the Appellate Body, on page 19, concluded that the requirement of 'in conjunction with restrictions on domestic production or consumption' was met as long as there was some restriction on domestic products. Identical treatment is not required here, just some restriction of a similar nature. See *Reformulated Gasoline Case*, n. 23 above, at 19.

[80] GATT 1994, Article XX.

[81] See also WTO DS 17 June 1987, *United States – Taxes on Petroleum and Certain Imported Substances*, L/6175–34S/136, at para. 156, where the panel concluded as follows: 'a balance must be struck between the right of a Member to invoke and exception under Article XX and the duty of that same Member to respect the treaty rights of the other Members'.

[82] The protection of turtles in Malaysian waters from the adverse impact of the shrimp fishery in those waters, which lie clearly outside the territory or jurisdiction of the USA, is an example. It did so by finding a sufficient connection between the protection of turtles and the interests of the USA. It is easy to see how a similar reasoning would lead to the conclusion that measures designed to reduce the impact of production of certain products on climate change, even if the production took place outside a given country, should similarly be of sufficient interest to that country, given that the impacts of climate change are felt globally.

[83] Of note is that the Appellate Body went to great length to point out different circumstances in importing countries that would justify allowing importing countries to meet the valid objective of protecting turtles in a different manner. See also *United States – Taxes on Petroleum and Certain Imported Substances*, n. 81 above, at para. 164. Absent from the analysis, however, is why those differences were not considered in the context of the chapeau of Article XX, given that the chapeau limits the non-discrimination requirement only to situations 'where the same conditions apply'. In the Shrimp–Turtle Ruling (No 1), the reverse of what seems to be contemplated in the chapeau of Article XX was found. The Shrimp–Turtle Ruling is an example of identical treatment applied to different conditions rather than different treatment applied where the conditions are the same. See Shrimp–Turtle Ruling (No 1), n. 10 above.

objective. It is important to note, however, that the Appellate Body has clearly moved away from the test of whether the measure in question is the least trade-restrictive manner to achieve the legitimate objective.[84] The implications of considering this issue in the specific context of a given product versus the more general context of a State's emission-reduction target are discussed above.

The wording of the chapeau, referring to a disguised restriction on international trade, again raises the possibility of the WTO dispute-resolution process having to consider parties' motives or the predominant purpose, rather than just the effect. Outside the issue of whether the legitimate objective could have been met in a less trade-restrictive manner, it is unclear how this will contribute constructively to the analysis. It may put the Appellate Body in the very difficult position of being asked to interpret the intentions of the parties rather than focus on the effect of the measures to see if the legitimate objectives could have been met in a less trade-restrictive manner.

Different climate change mitigation measures carry with them very different collateral costs and benefits. It seems clear that if a State chooses a relatively more trade-restrictive measure because of collateral benefits, such as reduced air pollution, or some other social or environmental benefit, it will have to be careful to identify clearly the collateral benefits and bring all benefits under Article XX. Otherwise, a less trade-restrictive measure that does not have these collateral benefits associated with it may very well form the basis for a conclusion that the measure chosen is more restrictive than necessary to meet the objective, which is a finding that is still likely to have significant influence over the test in the chapeau of Article XX on whether the measure is arbitrary and unjustifiable in its impact on international trade. In other words, States need to be clear when the objective of a measure is to address more than one legitimate objective under Article XX, in order to prevent a comparison with measures that do not achieve the multiple intended objectives.

The overall conclusion from the rulings to date appears to be that measures to address climate change will be acceptable under GATT 1994 if the measures treat like products alike. If not, the different treatment will have to be justified under Article XX. Most likely to succeed under Article XX will be measures with clear environmental objectives and that have as much flexibility as possible on how to meet those objectives. Measures that require the application of specific technologies or measures to meet the stated environmental objective are less likely to be saved under Article XX, unless there is no alternative way of achieving the Article XX(b) or (g) objective. Finally, if there are collateral environmental or social benefits other than the effects of climate change mitigation that justify imposing a requirement for a specific production method or the use of a specific technology over another, careful analysis will be needed to justify the choice of measures, including an analysis of whether the collateral benefits result in the products being different products, or whether the collateral benefits help justify any difference in treatment of like products under the chapeau of Article XX.

WOULD REQUIREMENTS TO DISCLOSE GHG EMISSIONS FROM PRODUCTION ON IMPORTED PRODUCTS BE UPHELD UNDER THE WTO RULES?

The definition of technical regulations in Annex I of the TBT Agreement[85] includes labelling, terminology, symbols, packaging and marking requirements. A requirement to provide information about the GHG emissions from, or energy intensity of, the production process, transportation, use or disposal of a product is therefore likely to be subject to the same tests under Articles I, III and XX of GATT 1994 and relevant provisions of the TBT Agreement as discussed above.

To date, there have not been any cases on this point, but one would expect the labelling requirement, when weighed against a legitimate objective under Article XX(b) or (g), to be considered a relatively minor restriction on international trade. Much will likely depend on the particular circumstances involved. The issue of labelling is likely to be first considered by the WTO in the context of genetically modified food products, given the labelling requirements in Europe and the resistance in many food-exporting countries to accept these requirements.[86]

IS THE FAILURE TO INTERNALIZE CLIMATE CHANGE IMPACTS INTO THE COSTS OF PRODUCTS A SUBSIDY?

The issue here is whether a WTO Member State could take the position that a product that is imported at a

[84] Rather, the question of whether there are less trade-restrictive ways of achieving the legitimate objective will be a factor to consider in deciding whether the measure is consistent with the chapeau of Article XX. See *Reformulated Gasoline Case*, n. 19 above, and Shrimp–Turtle Ruling (No 1), n. 10 above.

[85] See TBT Agreement, n. 5, above, Annex.

[86] The discussions on this issue by the Trade and Environment Committee set up under the WTO are very much at the initial stages, with few indications on whether and how this issue might be resolved through negotiations as opposed to through interpretation of existing provisions of GATT 1994 and the TBT Agreement. A detailed analysis of this issue is beyond the scope of this article.

price that does not internalize the climate change costs from the production, transportation, use and/or disposal of the product is being subsidized and therefore can be the subject of a countervailing measure. The starting point for any assessment of this issue is the Agreement on Subsidies and Countervailing Measures (Subsidy Agreement).[87] The agreement generally categorizes subsidies into three categories: those that are prohibited and subject to an accelerated dispute-settlement procedure; those that are non-actionable and therefore permitted;[88] and those that are open to challenge under the dispute-settlement process or subject to countervailing action. More specifically, the agreement defines a subsidy as a financial contribution by a government or a public body in a Member State that confers a benefit, such as:

- a direct transfer of funds or liabilities;
- revenues owed that are not collected or are forgiven;
- goods or services other than general infrastructure that are provided; or
- any of these actions that are taken indirectly by a government or public body through a private body.

In addition, the Subsidy Agreement incorporates Article XVI of GATT 1994 into the definition of a subsidy. Article XVI, however, does not provide a clear definition. The wording of Article XVI suggests an approach comparable to the one set out above, but Article XVI leaves considerable room for interpretation.[89]

In the absence of any case law directly on point,[90] it is difficult to come to any firm conclusion on this issue, other than to state that there is no indication to date that the WTO is ready to consider a failure to internalize the environmental cost of producing a product to be a subsidy. It seems clear that any such recognition would have to either come under Article XVI, or would require an amendment of the definition of subsidy under the Subsidy Agreement. An adjustment to the definition of subsidy to recognize explicitly the obligation of Member States to internalize environmental costs incurred during the life cycle of the products it trades internationally would be an adjustment that would go a long way to addressing some of the serious challenges in the relationship between international trade and environmental law. In the meantime, given the current definition used in the Subsidy Agreement, it is not clear whether an argument that such failure amounts to a subsidy would succeed.[91]

A related question is whether a measure to protect a good, which has to meet a stricter GHG emissions standard than competing products on the international market, can receive government assistance without fear of retaliation under the Subsidy Agreement. In this context, the definition appears to be clear in including such government assistance as a subsidy. Given the failure to extend the application of Article 8 of the Subsidy Agreement, which had previously allowed for some unactionable subsidies, there currently appears to be nothing to prevent countervailing measures, if a State tries to protect products that have to meet a more stringent GHG emission standard through tariffs and duties. This leaves the acceptance of the failure to internalize environmental costs as a form of subsidy as the only promising avenue to encourage positive action on climate change through the use of the Subsidy Agreement.

[87] Agreement on Subsidies and Countervailing Measures, reprinted in *The Results of the Uruguay Round of Multilateral Trade Negotiations*, n. 3 above, at 264–314 (Subsidy Agreement).

[88] This exception to actionable subsidies was in place for an initial period, which lapsed at the end of December 1999. Efforts to extend the application of these provisions have failed to date, so the provisions are currently not applicable. See Committee on Subsidies and Countervailing Measures, Minutes of the special meeting held on 20 December, 1999 (G/SCM/M/22). This review took place pursuant to Article 31 of the Subsidy Agreement, n. 87 above. The consensus required to extend the application of Articles 6(1), 8 and 9 of the Subsidy Agreement was not achieved at that meeting.

[89] For a good general overview of the application of the Subsidy Agreement by the Appellate Body of the WTO, see WTO AB 9 December 2002, *United States – Countervailing Measures Concerning Certain Products from the European Communities*, WT/DS212/AB/R (AB-2002-5), paras 77–83 (US Countervailing Measures Ruling).

[90] There are some cases, such as the various US–Canada softwood lumber disputes, which have raised some related subsidy issues without addressing the specific issue of whether failure to internalize environmental costs can be considered a subsidy. See, for example, WTO DS 27 September 2002, *United States – Preliminary Determinations With Respect to Certain Softwood Lumber From Canada, Report of the Panel*, WT/DS236/R, where the panel concluded that selling crown-owned lumber at a lower stumpage fee than private woodlot stumpage fees is not a subsidy under GATT 1994 rules. It should be noted that the panel in this case did find that a low stumpage fee can constitute a subsidy (see para. 7.30 of the decision). The USA lost its argument that the low stumpage fees amounted to a subsidy based on a rejection of the baseline the USA thought to establish for determining whether Canada was subsidizing its lumber exports. The USA relied on stumpage fees in the USA rather than, for example, on stumpage fees in Canada for domestic use. This decision therefore leaves the door open to an argument that the baseline should be the cost to the environment of removing the lumber from the forest, and that any stumpage fee below this cost amounts to a subsidy. To date, however, such an approach to establishing the baseline for an assessment of whether a product is subsidized has not been argued before a WTO tribunal. The traditional approach has been to establish a baseline price based on existing prices of the product in comparable circumstances in the absence of government involvement to lower the price (see, for example, US Countervailing Measures Ruling, n. 89 above).

[91] Other existing subsidies to goods that contribute to climate change, however, can still be challenged under this agreement if the subsidies take one of the forms indicated above. Examples might include existing subsidies to fossil-fuel producing industries, such as coal and oil. See, for example, Submission of Saudi Arabia, *Energy Taxation, Subsidies and Incentives in OECD Countries*, WTO Committee on Trade and Environment, WT/CTE/W/215, TN/TE/W/9 (23 September 2002).

DOES THE EXPORT OF PRODUCTS THAT DO NOT INTERNALIZE THE COSTS OF CLIMATE CHANGE AMOUNT TO 'DUMPING'?[92]

'Dumping' refers to actions of a producer to support its exports, as opposed to subsidies, which refers to actions of the government to support a domestic producer. Because of the focus of dumping, which is on actions of the producer rather than on government action, it is therefore difficult to see how the link between dumping and the failure to internalize the costs of climate change can be made. The failure to internalize the cost of climate change is most likely to be found to be a government failure, not a producer's failure. Given that dumping is defined based on the domestic price as the baseline, unless the product is not sold domestically, the only way these provisions could have application is if a producer chooses to internalize the cost for the domestic market, but not for export purposes. If the producer's actions are as a result of government laws or policies, the action would fall under subsidies rather than dumping.

ARE WTO MEMBERS OTHERWISE PERMITTED TO TAKE ACTION AGAINST OTHER STATES TO LEVEL THE 'PLAYING FIELD'?

The issue here is whether there are other ways under the WTO rules that a Member State can take measures to prevent products (that are produced without having to reduce or eliminate their GHG emissions) from obtaining a competitive advantage over climate-friendly products (that do have GHG emission-reduction requirements associated with all or part of their life cycle) through the imposition of tariffs or duties. The general answer is that parties to GATT 1994 and members of the WTO have agreed to reduce tariffs and duties in an effort to support the international trade of goods. Any effort to increase tariffs or duties based on a concern that products produced in a manner that contributed to global GHG emissions without internalizing the cost to the climate of those emissions would have to be specifically permitted under GATT 1994 or another WTO agreement. Two such agreements, dealing with subsidies and dumping as a justification for the imposition of tariffs or duties, were considered above in the previous two sections.

One other exception to the general rule against raising tariffs and duties is the application of Article XIX. It provides for an increase in tariffs and duties, if there is a threat to a domestic industry as a result of an increased quantity of imported product into the domestic market. In circumstances where a Member State that does not impose any GHG emissions or energy intensity limit on a given product, perhaps because it has decided not to ratify the Kyoto Protocol, develops a significant competitive advantage over other Member States and thereby significantly increases its export of the product into these other States, Article XIX would allow the importing country to take emergency action to prevent the increased quantity of imports.[93]

Outside of these three specific exceptions, in response to a subsidy, dumping or a threat under Article XIX, the imposition of a tariff or duty to address competitiveness implications of climate change measures would be inconsistent with State obligations under the WTO regime.

CONCLUSION: WHAT ACTIONS COULD BE TAKEN ON CLIMATE CHANGE IN ACCORDANCE WITH THE RULES OF THE WTO?

Having gone through the relevant provision of the various WTO agreements and rulings dealing with environmental and related issues, it is now time to return to the questions posed at the beginning of the paper.

CAN A STATE TAKE MEASURES TO PROTECT INDUSTRIES THAT ARE ADVERSELY AFFECTED BY MEASURES TAKEN BY THAT STATE TO IMPLEMENT THE KYOTO PROTOCOL?

Product-specific measures can be justified in a number of ways. First, the measure to protect industries that are required to meet GHG emission standards cannot be challenged under the WTO rules, unless the products in question are considered to be like products. Differential treatment on the basis that the products are different

[92] See Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994, reprinted in *The Results of the Uruguay Round of Multilateral Trade Negotiations*, n. 3 above, at 168–196.

[93] Article XIX was recently the subject of an appellate body ruling in WTO AB 10 November 2003, *European Communities – Provisional Safeguard Measures On Imports Of Certain Steel Products*, WT/DS248/AB/R, WT/DS249/AB/R, WT/DS251/AB/R, WT/DS252/AB/R, WT/DS2530/AB/R, WT/DS254/AB/R, WT/DS258/AB/R, WT/DS259/AB/R (03-5966). On the facts before it, the Appellate Body concluded that the USA had failed to provide a reasoned and adequate explanation demonstrating that 'unforeseen developments' had resulted in increased imports causing serious injury to the relevant domestic producers.

is more likely to be accepted if the GHG emission standard applies to the use or disposal of the product than if it applies to the production of the product. The shrimp–turtle and asbestos rulings have, however, opened the door to consideration of production methods and resulting environmental impacts in the context of whether two products are like products.

Second, measures to protect low-emission GHG products can still be acceptable under Article XX of GATT 1994. It would seem likely that the objective of reducing climate change would be considered to be a legitimate objective under Article XX. The main question will be whether the measure in question appropriately strikes a balance between the legitimate objective and its impact on international trade. This issue will be debated in the context of the chapeau of Article XX and will likely draw the WTO into an assessment of the effectiveness of various possible GHG reduction measures. As long as this analysis is conducted with a focus on effect rather than purpose, and based on an acceptance of the right of States to decide which products to target for GHG emission reductions, it is not likely that the WTO and climate change regimes will clash significantly on this issue.

Third, in certain circumstances, there may be opportunities to justify the imposition of tariffs or duties. The most promising context is the Subsidy Agreement. Recognition of failure to address environmental costs as a form of subsidy would actually set a precedent that could lead to a much more progressive relationship between trade and environment, by giving countries that are willing to take the lead in addressing an environmental issue a tool to do so without being economically disadvantaged by having to compete with countries who fail to internalize environmental costs in the price of the goods they produce.[94]

CAN A STATE TAKE MEASURES TO PROTECT INDUSTRIES THAT ARE ADVERSELY AFFECTED BY MEASURES TO ADDRESS CLIMATE CHANGE, INDEPENDENTLY OF THE KYOTO PROTOCOL?

There are no signs in the WTO rules and rulings to date to indicate that the Kyoto Protocol targets will have much bearing on future WTO rulings with respect project-based climate change measures. It will likely not be practical to draw a distinction between measures that are taken to comply with the Kyoto Protocol and those that do not, other than a distinction on a State-by-State basis, based simply on whether or not a party has ratified the Kyoto Protocol. Because of this, it is likely that measures will not be treated differently whether or not a party seeks to justify them based on compliance with the Kyoto Protocol or based on a more general policy to reduce GHG emissions.[95]

CAN A STATE TAKE MEASURES TO INfIUENCE THE CLIMATE CHANGE IMPACT OF PRODUCTS IMPORTED INTO THAT STATE?

The short answer to this question may depend on whether the climate change impact results from the production, transportation, use or disposal of the product in question.[96] Additionally, it would depend on whether the measure in question was a technical requirement imposed on the imported product or a countervailing duty. In the former case, if the technical requirements are comparable to the requirements imposed on like domestic products, the measure should be acceptable under the WTO regime. In the latter case, the justification would have to come from a finding that the imported products were subsidies, or a finding that they posed a threat under Article XIX.

CAN A STATE TAKE MEASURES TO PREVENT A COMPETITIVE DISADVANTAGE RESULTING FROM MEASURES TO ADDRESS CLIMATE CHANGE IN CASE OF EXPORTS?

This issue raises the reverse of the previous question in the context of the Subsidy Agreement. Specifically, it raises the question of whether government assistance to reduce the cost of an exported product by the amount it cost to meet a more stringent domestic GHG emission standard would be considered as a subsidy. Such government assistance would clearly meet the definition of subsidy. In the absence of specific provisions allowing such a subsidy or making it non-actionable, States affected by such a subsidy, upon following the process set out in the Subsidy Agreement, will therefore likely be permitted to impose countervailing duties

[94] This would also be more consistent with the polluter-pays principle and with the concept of 'sustainable development' as defined in the Rio Declaration on Environment and Development (13 June 1992), printed in 31 ILM 874.

[95] This conclusion is supported by the very general objectives of the UNFCCC, which 188 States have ratified, and which can form the justification for almost any effort to reduce life cycle GHG emissions for a given product.

[96] See the five scenarios set out in the section headed 'Are Products with Differing Climate Change Impacts "Like Products" Under GATT 1994 Rules (Articles I and III)?' above.

or other measures to counteract the effect of the subsidy.[97] Financial assistance to domestic industries to protect them from competition against higher GHG-emitting products must therefore be considered a risky practice under the WTO regime. Technical regulations to impose GHG emission standards or energy-efficiency standards are more likely to be found to be consistent with WTO rules.

To conclude, one open question is to what extent the WTO will consider climate change impacts from PPMs and transportation in deciding whether two products are like products. Exactly how and to what extent these issues will be considered under Article XX in deciding whether a measure meets the legitimate objective of reducing climate change in a manner consistent with Article XX is also unresolved. Technical regulations, however, designed as much as possible to treat products alike except for their climate change impact, should be upheld under Article XX, if not under Articles I and III. Finally, the extent to which subsidies will evolve through WTO rulings to include the concept of failing to require industry to internalize the climate change cost associated with a given product also remains to be seen.

The bottom line on the relationship between the WTO and the climate change regime would appear to be that, as long as the WTO dispute-settlement bodies continue to make decisions based on legal principles and precedent, there will be opportunities to develop climate change measures in a way to protect domestic industries from the impact of having to meet more stringent GHG emission-reduction requirements; motivate other States to take action; and protect those that do against competition from those that do not.

What remains to be seen is whether States value GHG emission reductions sufficiently to test the WTO regime on this front, and whether the WTO will make principled decisions on these issues, or political ones. These choices by Member States and the WTO Appellate Body may very well determine whether the future evolution of the WTO regime, through its rulings and through future negotiations, will bring environmental and trade principles closer together or further apart.[98]

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[97] As previously discussed, Article 8 of the Subsidy Agreement, which made subsidies to help industries to meet new environmental requirements non-actionable under some limited circumstances, expired on 31 December 1999. See Subsidy Agreement, n. 87 above.

[98] For a possible indication of the Canadian Government view on the role of the WTO in addressing environmental issues, see K.A. McCaskill, *Dangerous Liaisons: The World Trade Organization and the Environmental Agenda*, Policy Staff Paper No 94/14 (Department of Foreign Affairs and International Trade, June 1994).