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CLIMATE CHANGE, REGULATORY POLICY AND THE WTO

HOW CONSTRAINING ARE TRADE RULES?

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ABSTRACT

Climate change has come to be seen as a major global environmental challenge. This paper examines the extent to which WTO rules constrain countries' ability to address climate change through domestic regulatory policies such as standards, labels, voluntary agreements and domestic emissions trading programs. In particular, it examines three broad types of constraints. First, it discusses the extent to which domestic regulatory measures may conflict with national treatment provisions of GATT and the Technical Barriers to Trade Agreement. Second, it discusses procedural constraints on domestic regulatory action, including from requirements related to scientific evidence. Finally, it discusses the 'necessity' or least restrictive means tests under GATT and the TBT Agreement. The paper argues that existing WTO rules provide members with some scope to take action on climate change. However, they do constrain domestic regulatory policy, and the debate about future institutional changes will be central to how effectively global environmental issues such as climate change will be addressed.

INTRODUCTION

International trade rules have come under increasing attack in recent years based on a perception that they significantly constrain governments' ability to implement non-economic policies. Critics claim that these rules either intentionally or in effect reduce the ability of countries to set their own environmental, health and consumer protection policies. However, supporters of the international trading system argue that World Trade Organization (WTO) rules merely attempt to balance state autonomy in such areas with a desire to

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eliminate policies restricting trade and protecting domestic industry.[1] Others argue that while there may have been concerns in the past, they have been partly or largely allayed by recent decisions by the Appellate Body of the WTO.[2] Unfortunately, the issues surrounding climate change policy illustrate that the concern about WTO constraints on domestic environmental policy remain.

Climate change has come to be seen as a major global environmental challenge. Although some dispute its existence or the severity of its potential impacts,[3] concerns over climate change led to the Kyoto Protocol to the United Nations Framework Convention on Climate Change (FCCC).[4] The objective of the FCCC is 'stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system'.[5] The Parties to the Kyoto Protocol agree to collectively reduce greenhouse gas emissions by approximately five percent below 1990 levels by 2008 to 2012.[6] Various industrialized countries have committed to particular emissions reductions. For example, Canada committed to reducing emissions by six percent below 1990 levels and the UK, France and Germany by eight percent. Developing countries have no set reduction commitments. The Kyoto Protocol contemplates countries using a range of policy instruments to meet their targets. The limits on energy use and greenhouse gas emissions necessary to meet these targets have the potential to impose significant costs on various industries and countries.[7]

[1] For a discussion of these debates, see Michael Trebilcock and Robert Howse, *The Regulation of International Trade* (3rd edn, London: Routledge, forthcoming), Robert Howse and Elizabeth Tuerk, 'The WTO Impact on Internal Regulations – A Case Study of the Canada – EC Asbestos Dispute', in Grainne de Burca and Joanne Scott (eds), *The EU and the WTO: Legal and Constitutional Issues* (Oxford: Hart Publishing, 2001) and Alan Sykes, 'Domestic Regulation, Sovereignty, and Scientific Evidence Requirements: A Pessimistic View', 3(2) Chi. J. International L. (2002) 353.

[2] See, for example, John Knox, 'The Judicial Resolution of Conflicts Between Trade and the Environment', 28(1) Harvard Env. L.R. (2004) 1.

[3] Bjorn Lomborg, *The Skeptical Environmentalist: Measuring the Real State of the World* (Cambridge: Cambridge University Press 1998).

[4] United Nations Framework Convention on Climate Change (FCCC), reprinted in 31 I.L.M. (1992) 849 and Kyoto Protocol to the FCCC (Kyoto Protocol), 37 I.L.M. (1998) 22.

[5] FCCC, Article 2.

[6] Under Article 25, the Kyoto Protocol comes into force 'on the ninetieth day after the date on which not less than 55 Parties to the Convention, incorporating Parties included in Annex I which accounted in total for at least 55 percent of the total carbon dioxide emissions for 1990 of the Parties included in Annex I, have deposited their instruments of ratification, acceptance, approval or accession.' As of 15 April 2004, 84 Parties had signed and 122 Parties ratified or acceded to the Protocol, with the emissions total of 44.2 percent. However, the Russian Duma and Federation Council have recently approved ratification and President Putin has signed the federal law to ratify the Protocol. The Kyoto Protocol will come into force on 16 February 2005. See www.unfccc.int (visited 4 February 2005).

[7] For example, Barker and Ekins found that many cost estimates of implementing climate change measures in the US were very high. However, they also found that if the policies used were 'expected, long term and well designed' (meaning market-based instruments were used), the costs were likely to be less than 1% of GDP although with much of the cost focused on a few sectors such as coal (Terry Barker and Paul Ekins, 'The Costs of Kyoto for the US Economy', 25(3) The Energy J. (2004) 53). The estimated costs of implementing the Kyoto Protocol in Canada vary greatly. The Analysis and

The potential costs to particular regions and sectors of implementing climate change policies raise the fear that governments will resort to protectionism – that is, implement their climate change policy in a manner which either protects their domestic industries from a loss of international competitiveness or imposes the costs of reductions on importers. Countries can address climate change in two broad ways. First, countries can use the 'flexibility mechanisms' under the Kyoto Protocol. These mechanisms include greenhouse gas emissions trading, joint implementation and the Clean Development Mechanism. These flexibility mechanisms allow certain countries (the Annex I countries) to obtain credits against their reduction targets by purchasing emission reductions from others or investing in projects in other countries that reduce emissions.[8] They may conflict with WTO rules. For example, a conflict may arise under the General Agreement on Trade in Services (GATS) if emission reduction units are viewed as 'securities' and trading rules only permit service providers from countries listed in Annex I of the Kyoto Protocol (industrialized countries) to participate in the trading regime.[9]

Second, countries can implement domestic climate change measures. The Kyoto Protocol provides considerable flexibility for countries to design domestic policies and measures to meet their targets such as through energy efficiency measures; promotion of sustainable agriculture; new and renewable forms of energy; new technology and sectoral reforms; and phasing out of tax and duty exemptions and other subsidies which 'run counter to the objective

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Modelling Group ('AMG'), a federal-provincial-territorial working group, estimated the economic costs to be 0 to -2 percent of GDP with most of the costs borne by Alberta, Saskatchewan and Newfoundland in part because of the impact on the oil and gas industry (Government of Canada, *A Discussion Paper on Canada's Contribution to Addressing Climate Change* (May 2002) http://www.climatechange.gc.ca (visited July 2002)).

[8] The emissions trading provisions (Article 17) allow countries listed in Annex B to the Kyoto Protocol (industrialized countries) to trade greenhouse gas emissions allowances with each other to meet their commitments. The Joint Implementation provisions (Article 6) permit Annex I countries (industrialized countries listed in Annex I to the FCCC) to obtain credits by investing in projects in other Annex I countries that reduce greenhouse gas emissions. The Clean Development Mechanism (Article 12) permits Annex I countries or private entities in those countries to invest in projects in developing countries that reduce greenhouse gas emissions and use the emissions reductions to meet their reduction targets. See Helen Loose, 'Kyoto Protocol: Trade versus the Environment', 12(1) Energy and Environment (2001) 23, for a discussion of the flexibility mechanisms and the distinction between flexibility mechanisms and domestic policies.

[9] Sikina Jinnah, 'Emissions Trading under the Kyoto Protocol: NAFTA and WTO Concerns', 15 Georgetown International Environmental L.R. (2003) 709, and Loose, above n 8. For other discussions of the flexibility mechanisms and the WTO, see Annie Petsonk, 'The Kyoto Protocol and the WTO: Integrating Greenhouse Gas Emissions Allowance Trading into the Global Marketplace', 10 Duke Environmental Law and Policy Forum (1990) 185, Jacob Werksman, 'Greenhouse Gas Emissions Trading and the WTO', 8(3) Review of European Community and International Environmental Law (1999) 251, ZhongXiang Zhang, 'Greenhouse Gas Emissions Trading and the World Trading System', 32(5) J. World Trade (1998) 219, and Richard Parker, 'Designs for Domestic Carbon Emissions Trading: Comments on WTO Aspects' (Discussion Paper, H. John Heinz Center for Sciences, Economics and the Environment, June 1998, http://www.heinzctr.org/meeting_reports.htm (visited July 2004)).

of the Convention and application of market instruments'.[10] In subsequent negotiations in Bonn on implementing the Kyoto Protocol, the Parties agreed that such domestic policies and measures will 'constitute a significant element of the effort made by each Party' to meet its commitments.[11] Countries will therefore likely adopt policies such as domestic taxes, procurement policies and regulatory measures to meet their commitments.

This paper argues that WTO commitments constrain the ability of countries to adopt the latter form of instruments – domestic policies and measures – in the context of climate change. In particular, it examines the constraints on the use of a subset of domestic policies and measures – regulatory policies such as emission and energy efficiency standards, eco-labeling, voluntary measures (including voluntary contracts between governments and industry) and domestic emissions trading programs. Unlike the conflicts that can arise where multilateral environmental agreements explicitly incorporate trade measures to attempt to protect the environment,[12] the conflict between domestic regulatory measures and WTO rules arises from the limits under WTO agreements on unilateral measures taken by individual countries which are not aimed at trade per se (such as a prohibition on trade in certain products) but have an actual or potential impact on trade nonetheless. The regulatory measures under the Kyoto Protocol are unilateral measures since the Kyoto Protocol does not specify any required content for the domestic measures or even which measures to use.

The FCCC itself addresses the potential conflict between climate change policy and the international trading regime. It states that parties 'should cooperate to promote a supportive and open international economic system' and that 'measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade'.[13] Further, in discussing domestic measures, the Kyoto Protocol states that the Annex I parties 'shall strive to implement policies and measures under this Article in such a way as to minimize adverse effects, including the adverse effects of climate change, effects on international trade, and social, environmental and economic impacts on other Parties, especially developing country Parties'.[14]

[10] Kyoto Protocol, Article 2.

[11] ZhongXiang Zhang and Lucas Assuncao, 'Domestic Climate Policies and the WTO', 27 The World Economy (2004) 359, 360.

[12] There are relatively few multilateral environmental agreements that explicitly incorporate trade measures. These include the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES),12 I.L.M. 1085 (regulating trade in endangered species), the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 28 I.L.M. 649 (regulating trade in hazardous wastes) and the Montreal Protocol on Substances that Deplete the Ozone Layer, 26 I.L.M. 1541 (regulating trade in ozone depleting substances). See Tania Voon, 'Sizing up the WTO: Trade-Environment Conflict and the Kyoto Protocol', 10(1) J. Transnational Law & Policy (2000) 71 (arguing the Kyoto Protocol has the potential to have this type of impact on trade through the creation and trading of emission credits).

[13] FCCC, Article 3.5.

While the FCCC and the Kyoto Protocol refer to the potential conflict with international trade, the main constraints on domestic regulatory policies to address climate change come from two WTO agreements: the General Agreement on Tariffs and Trade (GATT) and the Technical Barriers to Trade Agreement (TBT Agreement). In particular, there are three broad types of constraints that arise under these agreements. First, domestic regulatory measures implementing climate change policy may conflict with the national treatment provisions of GATT or the TBT Agreement.[15] National treatment requires that imported products 'be accorded treatment no less favourable than' that of 'like' domestic products.[16] The objective of national treatment provisions is to 'prevent Members from applying internal taxes and regulations in a manner which affects the competitive relationship, in the marketplace, between the domestic and imported products involved, "so as to afford protection to domestic production" '.[17] However, these requirements also constrain states' ability to implement non-protectionist regulatory measures.

Second, domestic measures may be constrained by a range of more procedural requirements under GATT jurisprudence or the TBT Agreement such as notice and comment requirements. Howse argues that such constraints may promote deliberative democracy in individual states.[18] However, some of these constraints may be less beneficial. For example, requirements specifying the level of scientific evidence necessary for a country to justify a measure can reduce the ability of states to choose their level of protection from risk in the face of scientific uncertainty.[19] This impact of scientific uncertainty is particularly problematic in the context of climate change given the range of uncertainty about the scope and timing of its effects and the effectiveness of various measures to address them.

Finally, domestic regulatory options are limited by a 'necessity' test that is applicable to certain regulatory measures. For example, under GATT, states can maintain measures that violate the national treatment provisions provided the measures fall within the exceptions in Article XX. WTO Appellate Body decisions have relied on a necessity test to determine whether a measure falls within Article XX. This test in general requires that states use the least trade restrictive means reasonably available. The TBT Agreement contains a similar

[14] Kyoto Protocol, Article 2.3.

[15] There is also the potential for a conflict with GATS but this conflict is not considered in this article. Further, even under GATT there are other provisions which could be violated such as Article I (Most Favoured Nation) or Article XI (quantitative restrictions). However, the most likely challenges relate to the National Treatment provisions.

[16] GATT, Article III.4 and TBT Agreement, Article 2.1.

[17] See WTO Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products* (*EC – Asbestos*), WT/DS135/AB/R, adopted 5 April 2001, at para 98 (discussing the purpose of the national treatment provisions of Article III of GATT).

[18] Robert Howse, 'Democracy, Science and Free Trade: Risk Regulation on Trial at the World Trade Organization', 98 Mich. L.R. (2000) 2329.

[19] Sykes, above n 1.

obligation for states to use the least trade restrictive means. However, this obligation is even broader than the requirement under GATT as it requires that all measures falling under the TBT Agreement, whether or not discriminatory, not be more trade restrictive than necessary. While the necessity tests under GATT and the TBT Agreement purportedly permit legitimate state action while only requiring the action to restrict trade as little as possible,[20] in actual practice the discretion granted to the dispute settlement body may impose substantive constraints on states' ability to make trade-offs between environmental protection and trade.

In order to set the context for the discussion of how WTO rules constrain domestic regulatory policies, Part I of this article briefly describes the potential regulatory policies governments may use to address climate change – emissions and energy efficiency standards, eco-labeling, voluntary agreements and domestic emissions trading programs. Part II then discusses the potential constraints on these forms of domestic regulatory policies that arise from the national treatment provisions under the GATT and the TBT Agreement. Part III focuses on the procedural constraints on states' choice of regulatory instruments, and in particular, constraints arising from requirements for science-based decisions. Part IV then examines whether the tests developed by the Appellate Body under Article XX of GATT and likely to be applied under the TBT Agreement constrain instrument choice. The impact of these tests will in part depend on the degree of scientific uncertainty related to climate change. Finally, Part V argues that more than international negotiations on specific instruments are necessary to overcome concerns raised by applying trade rules in the face of scientific uncertainty about a risk.

I. DOMESTIC REGULATORY INSTRUMENTS AND THE KYOTO PROTOCOL

Governments have a range of domestic regulatory options to address climate change. These options include mandatory emissions and energy efficiency requirements, labeling, voluntary agreements and domestic emissions trading programs.

A. Mandatory emission or energy efficiency requirements

Mandatory emission or energy efficiency requirements are laws or regulations imposing particular emissions or energy efficiency characteristics on a product or production process. They may take the form of a specific greenhouse gas (GHG) emission or energy efficiency level or of a requirement to use particular technology. These requirements are, in general, elements of a command and control approach to environmental regulation. The government mandates a particular action and the regulated party must comply or face penalties.

[20] Sykes, above n 1.

These measures can be industry or product specific or generally applicable across all sectors.

For example, governments have adopted regulatory standards in the transportation sector as it is a major source of GHG emissions worldwide.[21] Such measures include standards for fuel efficiency in vehicles and for quality of fossil fuels.[22] They can be set on a per vehicle basis, or alternatively can involve a requirement that low or zero emission vehicles attain a minimum percentage of vehicle sales.[23] Governments also set emissions or efficiency standards for other industries.[24] In addition, they can set energy standards such as for residential and commercial buildings, although governments tend to rely on energy ratings instruments and labeling to foster energy conservation.[25] Energy efficiency standards may also be imposed on consumer goods like refrigerators. A more recent approach to regulatory standards involves renewable portfolio standards (RPS).[26] This type of standard requires that a minimum percentage of energy inputs for production come from renewable forms of energy. For example, in the electricity sector, governments could require that energy companies generate a specified percentage of electricity from renewable forms of energy such as wind, biomass, hydro or solar energy.[27]

B. Voluntary agreements or challenges

In recent years governments have increasingly relied on voluntary actions by private parties to meet environmental objectives. While the effectiveness of these voluntary actions is unclear, governments such as in Netherlands, UK, New Zealand and Canada have introduced them to reduce greenhouse gas emissions or energy use.[28] Such voluntary action may take the form of negotiated agreements between a company or an industry association and the government to reduce emissions levels. These agreements vary in structure and substance as governments tend to negotiate such agreements on a case-by-case basis, although often based on a general framework. The agreements typically involve the private party agreeing to meet some emissions or energy efficiency target that is stricter than currently mandated. In exchange the private party receives a benefit such as funding, recognition, reduced or more flexible administrative requirements or even reductions in other environmental

[21] United Nations, ' "Good Practices" in Policies and Measures Among Parties Included in Annex I to the Convention', *United Nations Framework Convention on Climate Change*, October 2002 at p 42.

[22] Ibid, at p 45.

[23] Mark Jaccard, Nic Rivers and Matt Horne, 'The Morning After: Optimal Greenhouse Gas Policies for Canada's Kyoto Obligations and Beyond', 197 C.D. Howe Institute Commentary (2004) at 5.

[24] United Nations, above n 21, at 63. For example, in the waste industry policy instruments include technological requirements forcing landfills to collect and combust their emissions.

[25] United Nations, above n 21, at 38.

[26] Jaccard, Rivers and Horne, above n 23.

[27] Jaccard, Rivers and Horne, above n 23 and United Nations, above n 21.

[28] United Nations, above n 21 and Jaccard, Rivers and Horne, above n 23.

requirements. These agreements may or may not be binding. In addition, they may involve information-sharing provisions in order that industries can learn about best practices and improved technologies.[29]

Governments may also issue voluntary challenges to industry to meet certain targets (such as for emissions reductions or energy efficiency), in exchange for which the companies receive recognition for their efforts. The US, for example, has experimented with voluntary challenges such as the U.S. Environmental Protection Agency's 33/50 program.[30] In Canada, Environment Canada claims that 1,700 organizations have signed on to Canada's Voluntary Registry Inc and EcoGESte joint partnership program of which nearly 800 have developed voluntary action plans to reduce their GHG emissions.[31] However, voluntary challenge programs have been criticized for failing to result in significant emissions reductions due to deficiencies such as how the baseline for emissions is established.[32]

C. Eco-labeling

Governments may also use eco-labeling to curb emissions and to meet obligations under the Kyoto Protocol. Eco-labels are designed to provide consumers with an indication of the environmental friendliness of a product based on an independent assessment. They include: (i) labeling focused on energy requirements and emissions from use of a product; and (ii) process and production methods (PPM) labels that identify the amount of energy utilized and emissions in the process of producing a given product. Such labeling may be voluntary or may be a mandatory requirement imposed on industry by the government.

Eco-labeling attempts to target consumer preferences for energy efficient or GHG emission-minimizing products. Such labels are often used in conjunction with command and control regulatory measures that require standards for emissions. Many countries have developed general eco-labels focusing on positive environmental attributes (such as Germany's Blue Angel program and Canada's Environmental Choice Program). In addition, eco-labeling for energy efficiency may be used for consumer products such as appliances, electrical energy based products and even emissions and energy consumption of vehicles.[33] The International Standards Organization (ISO) has created a

[29] United Nations, above n 21, at 35.

[30] Under the 33/50 program, the US EPA challenged industry to reduce releases and transfers of 17 substances by 33% by 1992 and by 50% by 1995. Kathryn Harrison, 'Voluntarism and Environmental Governance', in Edward Parson (ed), *Governing the Environment: Persistent Challenges, Uncertain Innovations* (Toronto: University of Toronto Press, 2001). See also Cass Sunstein, *Risk and Reason* (Cambridge: Cambridge University Press, 2002) (arguing for greater use of risk reduction contracts).

[31] Environment Canada, *Canada's National Climate Change Business Plan 2002*, http://www.ec.gc.ca/epa-epe/en/agr.cfm (visited July 2004), at p 91.

[32] Harrison, above n 30 (arguing, for example, that at least 1/3 of the reductions claimed under the 33/50 program occurred before the program started because of the choice of base year).

series of standards which provides general guidelines and principles for establishing single attribute labels, verifying characteristics and designing labels.[34]

D. Domestic emissions trading

One of the most prominent aspects of the Kyoto Protocol has been the possibility of a global emissions trading regime. However, countries can also implement domestic emissions trading (DET) programs to reduce GHG emissions. Under such programs, the government sets a target emission level and then allocates permits for emissions amongst companies. It could allocate these initial permits in a number of ways such as by auction or for free. Companies are required to hold a permit for each unit of GHG they emit.[35] The permits can then be sold or traded between companies. Companies facing high costs to reduce their emissions may be able to minimize their costs by purchasing additional permits from companies that have lower costs of emissions reductions. Such trading regimes work through market incentives to reduce emissions, although they also require penalties for non-compliance.[36] They may involve decreases in the number of permits over time to gradually reduce the targeted emissions cap.[37]

DET regimes can either be broad and require all companies that use fossil fuels to obtain permits for emissions or be narrowly focused on a subset of industries.[38] For example, the UK was the first country to set up a DET for GHG emissions from large companies.[39] In Canada, the federal government has had a voluntary pilot DET program and is proposing a DET program targeted at large industry emitters including firms both 'upstream' and 'downstream' in the electricity sector, the oil and gas sector and the mining and manufacturing sector.[40]

II. NATIONAL TREATMENT AND KYOTO IMPLEMENTATION

A. The relationship between GATT and the TBT Agreement

The first potential source of conflict between these domestic policies and WTO rules arises from the national treatment provisions of GATT and the TBT Agreement. These agreements appear to overlap considerably. The GATT national treatment provisions under Article III.4 pertain to 'laws,

[33] Swedish National Board of Trade, *Climate and Trade Rules: Harmony or Conflict?* (January 2004) http://www.kommers.se (visited May 2004), at p 22.

[34] International Standards Organization, *Environmental Management: The ISO 14000 Family of International Standards* (2002), http://www.iso.org/iso/en/prods-services/otherpubs/iso14000/index.html (visited 9 November 2004).

[35] United Nations, above n 21 and Environment Canada, above n 31, at 18.

[36] United Nations, above n 21, at 30.

[37] Jaccard, Rivers and Horne, above n 23.

[38] Environment Canada, above n 31.

[39] United Nations, above n 21.

[40] The Canadian government has proposed allocating initial permits free for 75% of emission outputs with permits varying with production output. Environment Canada, *Climate Change Plan for Canada* (2002a, available at www.climatechange.gc.ca) and Environment Canada, above n 31.

regulations and requirements' affecting the internal sale, offering for sale, purchase, transportation, distribution or use of domestic or imported products. The Contracting Parties to the original GATT believed these provisions were insufficient to address the growing importance of non-tariff barriers to trade. As a result, they negotiated a more detailed and stringent 'Standards Code' in the Tokyo Round in the 1970s. This Code was strengthened when Members adopted the TBT Agreement along with the Sanitary and Phytosanitary Agreement (SPS Agreement) during the Uruguay Round.[41] The TBT Agreement governs 'technical regulations', standards and conformity assessment procedures.

The exact relationship between GATT Article III.4 and the TBT Agreement is unclear. There is an interpretative note to the Agreement establishing the World Trade Organization which provides that in the event of a conflict, the provisions of agreements such as the TBT Agreement are to prevail over the GATT provisions.[42] However, unlike the SPS Agreement, the TBT Agreement contains no 'safe harbour' from non-compliance with the GATT.[43]

WTO decisions have done little to clarify this relationship. In *EC – Asbestos*, the Appellate Body found that both GATT and the TBT Agreement were applicable to a French ban related to asbestos.[44] It analyzed the issue under GATT. The Appellate Body declined to assess the measure's compliance with the TBT Agreement as it found that it did not have a proper basis for analyzing the TBT Agreement issues. However, it stated:

> We observe that, although the *TBT Agreement* is intended to 'further the objectives of GATT 1994', it does so through a specialized legal regime that applies solely to a limited class of measures. For these measures, the TBT Agreement imposes obligations on Members that seem to be *different* from, and *additional* to, the obligations imposed on Members under the GATT 1994.[45] [emphasis in original]

[41] Alan Sykes, 'Regulatory Protectionism and the Law of International Trade', 66(1) U. Chic. L.R. (1999) 1.

[42] Agreement establishing the World Trade Organization, General Interpretative Note to Annex 1A.

[43] Fiona Macmillan, *WTO and the Environment* (London: Sweet & Maxwell, 2001). SPS Agreement, Article 2.4 states 'Sanitary or phytosanitary measures which conform to the relevant provisions of this Agreement shall be presumed to be in accordance with the obligations of the Members under the provisions of GATT 1994 which relate to the use of sanitary or phytosanitary measures, in particular the provisions of Article XX(b).'

[44] Appellate Body Report, *EC – Asbestos*, above n 17. As a result of a procedural issue, an earlier WTO Appellate Body decision that found a measure incompatible with GATT did not assess the measure's compatibility with the arguably applicable TBT Agreement. WTO Appellate Body Report, *United States – Standards for Reformulated and Conventional Gasoline (US – Reformulated Gasoline)*, WT/DS2/AB/R, adopted 20 May 1996. As the Appellate Body did not actually refer to the conflict or relationship the matter remained open and unclear. See Macmillan, above n 43.

[45] Appellate Body Report, *EC - Asbestos*, above n 17, p 31.

In the more recent decision of *EC – Sardines*, the Appellate Body found that EC rules relating to sardines were inconsistent with the TBT Agreement.[46] As a result, they declined to make a finding under other provisions of the TBT Agreement or under Article III of GATT.

As a result, the exact relationship between the agreements remains unclear. Any regulatory measure may have to comply with both agreements.[47] However, if a measure is challenged under both agreements, WTO panels and the Appellate Body will likely consider the TBT Agreement claim before the GATT claim.[48]

B. National treatment under GATT and the TBT Agreement

Both GATT and the TBT Agreement contain national treatment provisions. GATT Article III.4 states that imported products 'shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use'.[49] Article 2.1 of the TBT Agreement contains very similar language.[50]

The national treatment provisions under GATT have been addressed in a number of GATT and WTO decisions. These decisions help set the general framework for how dispute resolution would proceed for various domestic regulatory instruments implementing climate change. In the recent *EC – Asbestos* decision, the Appellate Body stated that the purpose of the national treatment provisions under GATT is to avoid protectionist domestic measures – that is, measures applied 'so as to afford protection to domestic production'.[51] Further they quoted from an earlier decision that:

> Toward this end, Article III obliges Members of the WTO to provide *equality of competitive conditions for imported products in relation to domestic products* . . . Article III protects expectations not of any particular trade volume but rather

[46] WTO Appellate Body Report, *European Communities – Trade Description of Sardines* (*EC – Sardines*), WT/DS231/AB/R, adopted 23 October 2002.

[47] Mattias Buck and Roda Verheyen, 'International Trade Law and Climate Change – A Positive Way Forward' (FES-Analyse Okologische Marktwirtschaft, July 2001), http://orae.fes.de:8081/fes/docs/INFOONLINE/AN-ITLCC-1.PDF (visited October 2004).

[48] Appellate Body Report, *EC – Sardines*, above n 46, and Trebilcock and Howse, above n 1.

[49] In full, GATT, Article III.4 states 'The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use. The provisions of this paragraph shall not prevent the application of differential internal transportation charges which are based exclusively on the economic operation of the means of transport and not on the nationality of the product.'

[50] TBT Agreement, Article 2.1 states 'Members shall ensure that in respect of technical regulations, products imported from the territory of any Member shall be accorded treatment no less favourable than that accorded to like products of national origin and to like products originating in any other country.'

[51] Appellate Body Report, *EC – Asbestos*, above n 17, para 97.

> of the equal competitive relationship between imported and domestic products. [emphasis added in *EC – Asbestos*][52]

The Appellate Body in *EC – Asbestos* then stated that this general principle 'informs' Article III.4 relating to domestic regulatory measures.[53]

The purposes of the national treatment provisions of the TBT Agreement are likely similar to those of GATT. However, it should be borne in mind that the interpretation of the provisions will depend in part on the overall purposes of the agreement. The preamble to the TBT Agreement states that the members desire to ensure technical regulations and standards and procedures for assessment of conformity 'do not create unnecessary obstacles to international trade'. Moreover, it recognizes that 'no country should be prevented from taking measures necessary to ensure the quality of its exports, or for the protection of human, animal or plant life or health, of the environment, or for the prevention of deceptive practices, at the levels it considers appropriate, subject to the requirement that they are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail or a disguised restriction on international trade...'.[54] These objectives may result in differences in the various constraints imposed by GATT and the TBT Agreement.

Under either GATT or the TBT Agreement, there are three key issues that must be addressed to determine if there is a violation of the national treatment provisions:[55]

- Is the impugned measure covered by GATT or the TBT Agreement?
- Are the domestic and imported products 'like'?
- Does the measure accord the imported product 'treatment no less favourable' than the domestic product?

This section will discuss how these issues are, or are likely to be, addressed by dispute resolution bodies. The following section will apply this discussion to various potential domestic regulatory instruments.

1. Is the regulatory measure covered by GATT or the TBT Agreement?

Governments may use various policy instruments, not all of which may be governed by the provisions of GATT or the TBT Agreement. The national treatment provisions under Article III of GATT apply to 'laws, regulations and requirements affecting the internal sale, offering for sale, purchase,

[52] Appellate Body Report, *EC – Asbestos*, above n 17, para 97, quoting WTO Appellate Body Report, *Japan – Taxes on Alcoholic Beverages*, WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R, adopted 1 November 1996.

[53] Appellate Body Report, *EC – Asbestos*, above n 17, p 37.

[54] TBT Agreement, Preamble.

[55] See WTO Panel Report, *Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef,* WT/DS161/R and WT/DS169/R, 31 July 2000 and WTO Appellate Body Report, *Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef (Korea – Beef)*, WT/DS161/AB/R and WT/DS169/AB/R, adopted 10 January 2001 for the steps in addressing Article III.4 of GATT.

transportation, distribution or use' of products. WTO dispute settlement bodies have tended to interpret both the terms 'laws, regulations and requirements' and 'affecting' quite broadly.

Panels and the Appellate Body have interpreted 'laws, regulations and requirements' to cover more than traditional legislation and regulations. For example, in *Canada – Certain Measures Affecting the Automotive Industry* the Panel held that the term included non-mandatory conditions that a private actor accepts in order to receive an advantage.[56] In that case, Canada exempted imported motor vehicles from a customs duty where the manufacturer's local production of motor vehicles reached a minimum amount of Canadian value added and a certain production to sales ratio in Canada. These conditions were expressed in government Orders and commitments by manufacturers in Letters of Undertaking to the government but were not, according to Canada, legally enforceable. The acceptance of the conditions to obtain the benefits related to importation potentially brought the measure within Article III. However, the Panel interpreted the term even more broadly. It found that in order for the action by a private party to be a 'requirement', there need only be a 'nexus between that action and the action of a government such that the government must be held responsible for that action'.[57] It went on to note that 'the ordinary meaning of the term "requirement" does not support the proposition that where a government induces a firm to make a clearly specified, verifiable commitment *vis-à-vis* that government to act in a particular manner, such a commitment only qualifies as a "requirement" if it is embodied in an instrument with a defined legal status under the law of the country in question.'[58] This broad definition would appear to capture the voluntary environmental agreements discussed above.

WTO decisions have taken a similarly broad approach to the term 'affecting'. For example, the Panel in *Canada – Automotive Industry* found that 'affecting' referred to laws, regulations and requirements directly governing the sale, offering for sale, purchase, transportation, distribution or use of products. However, it also found that the term covered laws, regulations or requirements that might 'adversely modify the conditions of competition

[56] WTO Panel Report, *Canada – Certain Measures Affecting the Automotive Industry*, WT/DS139/R and WT/DS142/R, 11 February 2000, issue not appealed: WTO Appellate Body Report, *Canada – Certain Measures Affecting the Automotive Industry*, WT/DS139/AB/R and WT/DS142/AB/R, adopted 19 June 2000. For a discussion of this dispute in the context of GATT and WTO national treatment jurisprudence, see Michael Trebilcock and S. Giri, 'The National Treatment Principle in International Trade Law' (Law and Economics Workshop Series, Faculty of Law, University of Toronto, WS 2002–2003 (9), February 2003).

[57] Panel Report, *Canada – Automotive Industry*, above n 56, para 10.107. Trebilcock and Giri, above n 56, 41–42 note that the Panel in WTO Panel Report, *India – Measures Affecting the Automotive Sector (India – Automotive)*, WT/DS146/R, WT/DS175/R, 21 December 2001 adopted similar reasoning to *Canada – Automotive Industry*, although the decision was clearer as the commitments in the former case were binding enforceable conditions accepted by manufacturers under Memoranda of Understanding with the government.

[58] Panel Report, *Canada – Automotive Industry*, above n 56, para 10.123.

between domestic and imported products'.[59] The advantage available to manufacturers who met the conditions set by the Canadian government modified the conditions of competition by promoting the use of domestic as opposed to imported products. Subsequent decisions adopt this broad interpretation of 'affecting'.[60]

The national treatment provisions of TBT Agreement are similar to Article III of GATT but their coverage is slightly different. The TBT Agreement provisions govern 'technical regulations' which are 'documents' specifying 'product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory'.[61] They 'may also include or deal exclusively with terminology, symbols, packaging, marking or labeling requirements as they apply to a product, process or production method'.[62] The TBT Agreement also applies to voluntary measures, termed 'standards' in the Agreement. A standard is defined as a 'document approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods'.[63] As with technical regulation, standards 'may also include or deal exclusively with terminology, symbols, packaging, marking or labeling requirements as they apply to a product, process or production method'.[64] Requirements and guidelines for standards are set out in the Code of Good Practice under the TBT Agreement.[65] Finally the TBT Agreement also applies to 'conformity measures' which are procedures to determine if technical regulations or standards are fulfilled.[66]

Unfortunately, there are few decisions which address a number of the important questions that arise under the TBT Agreement.[67] In *EC – Asbestos*, the Appellate Body reversed the Panel decision that the impugned ban on asbestos-containing products was not a 'technical regulation'. The Appellate Body set out three characteristics of 'technical regulations'. First, it found the document must apply to an identifiable product or group of products, although the product does not have to be specifically named in the

[59] Panel Report, *Canada – Automotive Industry*, above n 56, para 10.80. Trebilcock and Giri, above n 56, at 40.

[60] WTO Panel Report, *United States – Tax Treatment for 'Foreign Sales Corporations' – Recourse to Article 21.5 of the DSU by the European Communities*, WT/DS108/RW, 20 August 2001, upheld WTO Appellate Body Report, *United States – Tax Treatment for 'Foreign Sales Corporations' – Recourse to Article 21.5 of the DSU by the European Communities*, WT/DS108/AB/RW, 14 January 2002 and Panel Report, *India – Automotive*, above n 57. See Trebilcock and Giri, above n 56.

[61] TBT Agreement, Annex 1.

[62] Ibid.

[63] Ibid.

[64] Ibid.

[65] TBT Agreement, Annex 3.

[66] TBT Agreement, Annex 1, s. 3.

[67] For example, it is not clear what constitutes a 'recognized body' for the purposes of a 'standard' so the extent to which voluntary measures are covered is not certain.

document.[68] Second, it interpreted the term 'characteristics' broadly and found that it covers 'any objectively definable "features", "qualities", "attributes", or other "distinguishing mark" of a product'.[69] Moreover, it includes 'not only features and qualities intrinsic to the product itself, but also related "characteristics", such as the means of identification, the presentation and the appearance of the product'.[70] It found that these characteristics can be stated positively in terms of the characteristics the product must possess, or negatively in terms of the characteristics they may not possess. Finally, the Appellate Body found that compliance with the product characteristics must be mandatory.

The Appellate Body found that the ban on asbestos related to identifiable products and mandated characteristics and therefore fell under the TBT Agreement. In terms of the relationship with the GATT, the Appellate Body stated that '[w]e note, however – and we emphasize – that this does not mean that *all* internal measures covered by Article III.4 of the GATT 1994 "affecting" the "sale, offering for sale, purchase, transportation, distribution or use" of a product are, necessarily, "technical regulations" under the TBT Agreement.'[71] It limited its findings to the context of the case.

The scope of the TBT Agreement therefore may be not significantly broader than Article III of the GATT. However, in terms of the substance of the measures covered, the scope of the TBT Agreement appears narrower than GATT. The regulations or standards under the TBT Agreement must be clearly tied to the product – either its characteristics or their 'related processes and production methods'. The GATT is not tied to these issues but covers any legislation, regulation or requirement 'affecting' the sale, offering for sale, purchase, transportation, distribution or use of a product. The interpretation of the term 'affecting' to cover adversely modifying the conditions of competition, discussed above, makes the GATT Article III.4 coverage much broader than product characteristic requirements.[72]

2. Are the domestic and imported products 'like'?

Both Article III of GATT and Article 2.1 of the TBT Agreement relate the national treatment obligation to discrimination between 'like' products. In discussing the different uses of 'like', the Appellate Body in *Japan – Alcoholic Beverages* noted that 'the concept of "likeness" is a relative one that evokes the

[68] The characterization of 'technical regulations' in Appellate Body Report, *EC – Asbestos*, above n 17, was followed by the Appellate Body in *EC – Sardines*, above n 46. In *EC – Sardines*, the Appellate Body found that regulations specifying that only a certain type of sardines could be marketed as 'preserved sardines' identifies both the group of sardines that are included but also the types of sardines that are excluded.

[69] Appellate Body Report, *EC – Asbestos*, above n 17, p 26.

[70] Ibid.

[71] Appellate Body Report, *EC – Asbestos*, above n 17, p 29.

[72] The reference in the TBT Agreement to 'related processes and production methods' creates some confusion, as discussed below in Part II(B)(2).

image of an accordion. The accordion of "likeness" stretches and squeezes in different places as different provisions of the WTO Agreement are applied.'[73] As there have been no decisions under Article 2.1 of the TBT Agreement, it is not clear if the term 'like' means the same in both contexts.

The existence of a competitive relationship between the imported and domestic products is central to the determination of whether the products are 'like'.[74] One of the most recent decisions in this area is the Appellate Body Report in *EC – Asbestos* addressing a general ban by France on asbestos fibres, with limited exceptions.[75] The Appellate Body held that 'like' products should not be read as narrowly in Article III.4 as in Article III.2. It found that 'like' in Article III.4 related to 'the nature and extent of a competitive relationship between and among products'.[76] To aid in this determination of 'likeness', the Appellate Body referred to a non-closed list of four criteria found in earlier GATT and WTO decisions: (i) the properties, nature and quality of the products; (ii) the end-uses of the products; (iii) consumers' tastes and habits; and (iv) the tariff classification of the products. The test is largely market based.

This focus on the competitive relationship between the products is problematic as it does not take into account the fact that the regulation may have been adopted because consumers cannot tell the difference between products. For example, the regulation may be aimed at addressing the fact that the products are in a competitive relationship (consumers do not distinguish between the products) but the government feels there is a relevant difference necessitating regulation.[77] Trebilcock and Giri argue that a test based on competitive relationships undercuts, or is biased against, such legitimate exercises of domestic autonomy by states (although, as discussed in Part IV, a state can

[73] Appellate Body Report, *Japan – Alcoholic Beverages*, above n 52, at 23.

[74] A competitive relationship is necessary for a finding of 'likeness'. However, there is some uncertainty whether it is also a sufficient condition or whether other considerations such as the regulatory purpose are also relevant. For an argument in favour of inclusion of regulatory purpose, see Donald Regan, 'Further Thoughts on the Role of Regulatory Purpose under Article III of the General Agreement on Tariffs and Trade', 37(4) J. World Trade (2003) 737 (arguing that 'products should be regarded as "like" if (a) they are in a competitive relationship, and (b) they are not distinguished by any non-protectionist policy which actually underlies the challenged regulation' (at 752)). But see Trebilcock and Giri, above n 56 (arguing for a pure economics-based test along with a revised Article XX as a first best option with a second best option of an economic test combined with a narrowly defined test focused on whether the measure was primarily aimed at a non-protectionist objective, had only necessarily incidental impacts on imports and was the least trade restrictive means available).

[75] Appellate Body Report, *EC – Asbestos*, above n 17.

[76] Appellate Body Report, *EC – Asbestos*, above n 17, para 99.

[77] Gabrielle Marceau and Joel Trachtman, 'The Technical Barriers to Trade Agreement, the Sanitary and Phytosanitary Measures Agreement, and the General Agreement on Tariffs and Trade: A Map of the World Trade Organization Law of Domestic Regulation of Goods', 36(5) J. World Trade 811 (2002). See Trebilcock and Giri, above n 56 (arguing for a purely economic test for competitive relationship).

still invoke the exceptions under Article XX to justify measures that violate Article III).[78]

The Appellate Body in *EC – Asbestos* attempted to address this concern. It found that, contrary to the Panel's decision, asbestos (chrysotile) fibres were not 'like' PCG (polyvinyl alcohol, cellulose and glass) fibres despite the fact that they had some similar end-uses. The Appellate Body examined the physical properties of the products and found that chrysotile fibres and PCG fibres were physically different in large part because chrysotile fibres were an internationally recognized carcinogen and gave rise to a higher level of risk than PCG fibres. The Appellate Body then found that the physical differences imposed a burden on the complainant to show a competitive relationship. In this case, it found Canada did not meet the burden as there were only a few similar end-uses, there was no evidence of consumer tastes and the products fell into different tariff classifications.[79]

Further, in terms of cement products containing these fibres, the Appellate Body stated that consumer tastes were relevant and that it was possible that consumers would not view cement containing chrysotile as the same as cement containing PCG due to the different health risks. It found that in not providing evidence on this issue, Canada failed to meet its burden of proving a violation of Article III.[80] The Appellate Body appears to have adopted a test of whether the products would be competitive in an idealized marketplace in which consumers had complete information (and there was tort liability available).[81]

As a result, following *EC – Asbestos* panels may take differences such as health risks between products into account in determining 'likeness'. Where such differences exist, consumer tastes are relevant to the determination of whether the products are 'like'. However, it is still the case that the products may be considered 'like' if there is a difference in health risks or environmental effects and consumers do not consider it relevant to their purchasing decision (on the evidence).

A further important qualification on 'like' products relates to the relevance of non-product-related process and production methods ('PPMs') – that is, how products are made (such as the level of energy used or emissions). A key question is whether products with different PPMs are 'like' each other.[82] This

[78] Trebilcock and Giri, above n 56. But see Robert Hudec, 'GATT/WTO Constraints on National Regulation: Requiem for an "Aim and Effects" Test', 32 International Lawyer (1998) 619 (arguing that Article XX is too limiting given that its list of exceptions to substantive GATT obligations is closed).

[79] Appellate Body Report, *EC – Asbestos*, above n 17, paras 113–26.

[80] Appellate Body Report, *EC – Asbestos*, above n 17, paras 130, 145–47.

[81] Robert Howse and Elizabeth Tuerk, 'The WTO Impact on Internal Regulations – A Case Study of Canada – EC Asbestos Dispute' in G. de Burca and J. Scott (eds), *The EU and the WTO: Legal and Constitutional Issues* (Oxford: Hart Publishing, 2001).

[82] Panel decisions in the *Tuna/Dolphin* disputes held that measures related to PPMs were not covered by Article III as it dealt only with products. *United States – Restrictions on Imports of Tuna*, 30 ILM (1991) 1594; *United States – Restrictions on Imports of Tuna*, 33 ILM (1994) 936. However, Howse and Regan have argued that this interpretation of Article III does not accord with its wording: Robert Howse and Donald Regan, 'The Product/Process Distinction – An Illusory Basis for Disciplining "Unilateralism" in Trade Policy', 11(2) Eur. J. International Law (2000) 249.

question is important because it determines the extent to which one country can impose its views on issues (such as environmental protection or labour standards) on activities that take place in another country. Following *EC – Asbestos*, products with different PPMs must be in a competitive relationship, based in part on the four enumerated factors, to be considered 'like'. Consumer tastes will be central to the PPM issue as the products themselves are (by assumption) the same. If consumers differentiate between the products based on PPMs, a panel may not consider them 'like'.[83] If consumers do not differentiate between the products, however, as discussed in the next section, there remains some scope for different treatment based on PPMs under the 'less favourable treatment' test as set out in *EC – Asbestos*. Moreover, the differential treatment could still be justified under Article XX. However, the application of Article III to PPMs and its relationship to the 'like' product determination is not yet settled.

Article 2.1 of the TBT Agreement also requires national treatment of 'like' products. It is unclear but seems probable that 'like' will be given the same interpretation in the TBT Agreement as in Article III. However, Marceau and Trachtman argue that because of the lack of a direct equivalent to Article XX in the TBT Agreement and the purpose of the TBT Agreement, 'like' products may be read more narrowly in the TBT Agreement.[84] More confusingly, the TBT Agreement makes reference specifically to PPMs. It states that 'technical regulations' refers to documents specifying 'product characteristics and their related processes or production methods'. Similarly the definition of a standard refers to 'products or related processes and production methods'. It is not clear what the term 'related' means and whether the TBT Agreement is meant to govern even PPMs not directly related to physical properties of the product. Further, the definition of technical regulations states that it also may include requirements such as labeling 'as they apply to a product, process or production method'. This provision could be interpreted as covering non-product related PPMs, making technical regulations on non-product related PPMs permissible provided they meet the other requirements of the TBT Agreement.[85]

3. Is the treatment 'no less favourable'?

If the domestic and imported products are found to be 'like', the panel or Appellate Body must then consider whether the imported product was accorded treatment 'no less favourable' than the domestic product.[86] A formal

[83] Marceau and Trachtman argue that following the reasoning in *EC – Asbestos*, if the end products are physically similar, it will be difficult to overcome 'likeness' through consumer tastes regarding PPMs. Marceau and Trachtman, above n 77 but see Howse and Tuerk, above n 81 (stating that the Appellate Body did not come to this conclusion explicitly).

[84] Marceau and Trachtman, above n 77. However, they note that inclusion of non-protectionist policies in the 'less favourable treatment' provisions, as under *EC – Asbestos*, may be a better manner to allow state action within Article 2.1.

[85] Marceau and Trachtman, above n 77.

[86] Appellate Body Report, *EC – Asbestos*, above n 17, para 100.

regulatory distinction or difference in treatment between the imported and domestic products is not sufficient to find non-compliance with Article III.4. The Appellate Body has found that '[w]hether or not imported products are treated "less favourably" than like domestic products should be assessed instead by examining whether a measure modifies the *conditions of competition* in the relevant market to the detriment of imported products'.[87]

The Appellate Body in *EC – Asbestos* expanded on this notion of permissible differences. While it did not make a finding on 'less favourable treatment', it commented on the scope of the term. It stated that 'the term "less favourable treatment" expresses the general principle, in Article III.1, that internal regulations "should not be applied . . . so as to afford protection to domestic production"'.[88] Further, it commented that:

> If there is 'less favourable treatment' of the group of 'like' imported products, there is, conversely, 'protection' of the group of 'like' domestic products. However, a Member may draw distinctions between products which have been found to be 'like', without, for this reason alone, according to the group of 'like' *imported* products 'less favourable treatment' than that accorded to the group of 'like' *domestic* products. [emphasis in original][89]

Legitimate distinctions can, under this view, be made between products, provided the group of imported 'like' products is not treated less favourably than domestic products.

This test for 'less favourable treatment' appears to permit consideration of 'legitimate regulatory categories' in assessing compliance with Article III.4.[90] However, Porges and Trachtman point out that it is unclear whether different treatment based on non-protectionist goals (such as environmental objectives) is permitted under Article III or whether any 'less favourable treatment', whether protectionist or not, violates these national treatment provisions. Regan, on the other hand, relates this quote from *EC – Asbestos* to prior GATT and WTO decisions to argue that even if regulatory purpose is not relevant to the determination of 'likeness', it is relevant to the 'less favourable treatment' determination.[91] He argues that the reference to 'so as to afford protection' directly relates to regulatory purpose. He notes that the 'regulatory purpose' at issue is not necessarily the subjective intent of individual regulators

[87] Appellate Body Report, *Korea – Beef*, above n 55, at para 137 (emphasis in original). Marceau and Trachtman, above n 77, at 820.

[88] Appellate Body Report, *EC – Asbestos*, above n 17, para 100.

[89] Ibid.

[90] A. Porges and J. Trachtman, 'Robert Hudec and Domestic Regulation: The Resurrection of Aim and Effects', 37(4) J. World Trade (2003) 783, at 796. Note, however, GATT Panel Report, *United States – Taxes on Automobiles (US – Autos)*, DS31/R, 11 October 1994 (unadopted) in which the Panel found that the effects of measures could not be balanced out over all importers (that is, those treated better cannot be offset against those treated worse).

[91] Regan, above n 74, at 751. See also Porges and Trachtman, above n 90.

but rather the 'purposes or objectives of a Member's legislature and government as a whole' – that is, a form of objective intent test.[92]

This debate over the permissibility of regulatory categories in the determination of whether the treatment of imports was 'no less favourable' is connected to the debate over PPMs. Howse and Tuerk argue that the *EC – Asbestos* discussion of 'no less favourable' could be taken to have opened the door to PPMs being considered under Article III.[93] However, Trebilcock and Giri note that more recent WTO decisions do not appear to reflect a departure from earlier interpretations of 'no less favourable'. They argue that, in any event, such an interpretation would lead to illegitimate exercise of discretion by dispute settlement bodies, taking away the balance of considerations arrived at by the Members in Article XX.[94]

Whether or not environmental purposes (including PPMs) will be considered legitimate to ground regulatory categories under Article III.4 therefore remains unclear. The TBT Agreement also includes the term 'no less favourable'. However, as yet, no WTO decisions have interpreted this term.[95]

C. National treatment and reduction of greenhouse gases

How will national treatment obligations under WTO agreements impact governments' ability to use domestic regulatory measures to implement climate change policy? Answering this question requires examining the potential domestic regulatory measures with reference to the three issues: coverage under the agreement, 'like' products and 'less favourable treatment'.

1. Are they covered by GATT or the TBT Agreement?

The majority of the domestic regulatory measures relating to product characteristics (such as the energy efficiency or GHG emissions of the product itself) will fall under both GATT and the TBT Agreement. The mandatory emissions or energy efficiency requirements are 'law, regulations and requirements' for the purposes of Article III of GATT as would be any mandatory labeling program or mandatory DET provisions. Voluntary agreements may also fall within Article III, given the broad interpretation of 'requirements' found in *Canada – Automotive Industry*. Further, most such agreements would 'affect' the internal sale, offering for sale, purchase, transportation, distribution or use of a product given the broad scope given to the term 'affecting'.

[92] Regan, above n 74, bases this argument on the discussion of 'so as to afford protection' in the WTO Appellate Body Report, *Chile – Taxes on Alcoholic Beverages*, WT/DS87 and DS110/AB/R, adopted 12 January 2000 which he argues establishes an objective test for purpose focused on an 'examination of the design, architecture and structure of a tax measure precisely to permit identification of a measure's objectives or purposes as revealed or objectified in the measure itself' (at para 71). But see Trebilcock and Giri, above n 56 (arguing for a purely economic test for 'less favourable treatment').

[93] Howse and Tuerk, above n 81. See also Marceau and Trachtman, above n 77.

[94] Trebilcock and Giri, above n 56.

[95] Marceau and Trachtman, above n 77, note that this term may provide an opportunity to examine the protectionist or non-protectionist objectives of the measure, following the decision in *EC – Asbestos*.

Most of these measures related to product characteristics would also fall under the TBT Agreement. The most common mandatory requirements such as those relating to fuel efficiency or emissions of GHG (including bans on products with certain types of characteristics[96]) would be 'technical regulations' as they would relate to product characteristics given its broad interpretation in WTO decisions.[97] Mandatory eco-labeling of product characteristics would also be covered as labeling is explicitly mentioned in the definition of technical regulations. Voluntary eco-labeling related to product characteristics may fall within the TBT Agreement. Voluntary eco-labeling is likely a 'standard' where it is set by a 'recognized body' such as a governmental organization and therefore subject to the TBT Agreement. However, if the standard is set solely by the private industry with no government involvement, it would not be subject to mandatory requirements of the TBT Agreement.[98] Voluntary agreements related to product characteristics, on the other hand, will fall within the term 'technical regulations' where compliance with the agreement is mandatory. If not mandatory, they will only be covered by the TBT Agreement if they fall within the term 'standard' such that they set specific characteristics, rules or guidelines 'for common and repeated use'.[99] Some facility-specific agreements may not fall within this definition. Finally, DET programs related to product characteristics will fall within the term 'technical regulations' where mandatory and may fall within 'standards' where voluntary.

Some standards may fall under GATT but not the TBT Agreement. As the Appellate Body in *EC – Asbestos* points out, Article III may have a broader scope than the TBT Agreement. Some standards such as those related to purchasing, distribution or transportation may not be covered by the TBT Agreement as they are not related to product 'characteristics or their related processes or production methods' even including means of identification, presentation or appearance of the product. Such a distinction will be important when discussing the limitations on government action under each Agreement in Parts III and IV.

Finally, as noted above, it is not clear if non-product related PPMs are covered under either of the agreements and therefore how such measures will be treated. A country may try to address climate change by imposing PPM-based standards equally on all products, domestic and foreign, in an attempt to have the foreign products face similar costs to domestic products. PPM requirements are most likely to arise under eco-labeling programs, although conceivably they could arise in other instruments. The general view has been that PPMs requirements based on the energy efficiency or emissions of the

[96] Appellate Body Report, *EC – Asbestos*, above n 17.

[97] Appellate Body Report, *EC – Asbestos*, above n 17 and Appellate Body Report, *EC – Sardines*, above n 46.

[98] Buck and Verheyen, above n 47.

[99] TBT Agreement, Annex 1.

method of processing or production will not be found to comply with GATT.[100] However, following *EC – Asbestos*, there is a possibility that such measures will be considered under Article III as a legitimate differentiation of 'like' products.[101] As noted above, the terms of the TBT Agreement are unclear on the issue of PPMs. Product related PPMs would appear to be included under the TBT Agreement both in the definitions of technical regulations and standards. The definitions are sufficiently vague, however, that there is the strong possibility that a panel will find that non-product related PPMs are not included in the agreement. As a result, measures based on non-product related PPMs seem likely to be found to violate Article III and not be included under the TBT Agreement, with the result that they are not permissible. However, the status of such PPMs remains an open issue.

2. Are the imported and domestic products 'like'?

If the standards are covered by the Agreements, the first issue that must be addressed is whether the products are 'like'. As noted in section B above, the 'like' product determination following *EC – Asbestos* rests on an analysis of whether there is a competitive relationship between the products. This analysis will in part depend on the four enumerated factors: physical characteristics, end uses, consumer tastes and tariff classification. In terms of addressing climate change, one of the main questions is whether two products which differ only in their energy use or GHG emissions will be considered 'like' (for example, two types of cars which differ only in fuel efficiency).

The competitive relationship analysis must be made on a case-by-case basis but there are some general observations that can be made. First, if the end uses are the same, the key will be whether the physical characteristics of the products are viewed as the same and how this relates to consumer tastes. Some commentators point to the *US – Autos* decision as illustrating that the WTO may not consider products that differ in terms of energy efficiency or emissions as 'like'.[102] In that case, a panel (in an unadopted report) concluded that a 'gas guzzler' tax imposed by the US did not violate national treatment obligations as cars that used more than 22.5 miles per gallon were not 'like' cars that used less gas.[103] The Panel found that the tax measures were aimed at a legitimate regulatory purpose. It also found that the competitive effects did not result from a distinction that inherently arose between domestic and imported products. The fuel efficient technology was not inherent to the US and low fuel economy vehicles were not inherently imported.[104] As a result, the products were not 'like'.

[100] G. Sampson, 'WTO Rules and Climate Change: The Need for Policy Coherence' in *Global Climate Governance*, www.geic.or.jp/climgov (viewed April 2004).

[101] Howse and Tuerk, above n 81 but see Trebilcock and Giri above, n 56.

[102] Buck and Verheyen, above n 47 and Zhang and Assuncao, above n 11.

[103] Panel Report, *US – Autos*, above n 90. The Panel also found that a luxury excise tax did not violate national treatment provisions.

[104] See Trebilcock and Giri, above n 56 for a discussion of this decision.

However, this decision was a tax decision under Article III.2. The Appellate Body in *EC – Asbestos* clearly stated that the term 'like' in Article III.4 was broader than the term 'like' in the first sentence of Article III.2.[105] There is therefore more scope for a finding of 'likeness' under Article III.4. Further, the *US – Autos* was decided using the aim and effects test that has not subsequently found at least explicit favour with the Appellate Body.[106] It is therefore not clear whether fuel efficient or less emitting vehicles are 'like' their less environmentally friendly alternatives.

Following *EC – Asbestos*, a Panel examining a challenge to a domestic regulatory measure addressing climate change may look to whether differences in potential health or environmental effects result in the products having different physical characteristics. The Appellate Body in *EC – Asbestos* placed considerable emphasis on the nature of the product's health effects and its impact on the competitive relationship between the products. Although it rejected the need for a quantitative risk assessment, the Appellate Body appears to have been heavily influenced by the apparent certainty or consensus on the health risks from asbestos.[107] In terms of climate change, there is considerable scientific agreement on some issues but a panel or the Appellate Body may view the evidence of health or environmental impacts as less settled than that for the carcinogenic effects of asbestos.[108] Such uncertainty would reduce the probability that the products would be found to be 'unlike'.

Interestingly the Appellate Body in *EC – Asbestos* relied heavily on the interaction of two factors – product characteristics and consumer choices. It found that given that the health impacts were different, there was a heavy burden on Canada to show asbestos and PCG fibres were 'like'. As noted above, it approached this issue in two ways. First, it required evidence of consumer tastes which Canada did not provide. In the case of GHG emissions and fuel efficiency, there may be some evidence of differences in tastes for some products (possibly cars).[109] However, it is less clear whether the market makes a clear differentiation for other products, particularly for differences based on non-product related PPMs. In fact, it is the lack of consumer differentiation which may be the impetus for regulation.[110] As a result, any regulatory measure

[105] Appellate Body Report, *EC – Asbestos*, above n 17, para 99.

[106] See Appellate Body Report, *Japan – Alcoholic Beverages*, above n 52. See also Hudec, above n 78.

[107] For example, the Appellate Body in *EC – Asbestos* at times refers to how the asbestos fibres are 'known to be highly carcinogenic' (para 49) and 'recognized internationally as a known carcinogen' (para 135). A concurring opinion by a member of the Appellate Body states that 'the scientific evidence of record for this finding of carcinogenicity of chrysotile asbestos fibres is so clear, voluminous, and is confirmed, a number of times, by a variety of international organizations, as to be practically overwhelming' (para 151). Appellate Body Report, *EC – Asbestos*, above n 17.

[108] Swedish National Board of Trade, above n 33.

[109] Buck and Verheyen, above n 47 (arguing that consumers already differentiate on the basis of energy efficiency and this differentiation may increase as appreciation of the potential impacts of climate change grows).

[110] Marceau and Trachtman, above n 77.

(whether regulation, label or other measure) which differentiates without evidence of consumer tastes may be vulnerable to challenge.

Second, Howse and Tuerk argue that the Appellate Body in *EC – Asbestos* adopted a test based on an 'idealized' market of consumers with full information.[111] This analysis brings the regulatory purpose of the measure into play – would fully informed consumers differentiate between products that emit less GHG or use less energy? This analysis goes beyond any economic test of consumer preferences. It is unclear how a Panel would make this determination. Its analysis will likely depend on the particular product. For some products, the cost savings from energy efficiency may give some (limited) basis for suggesting fully informed consumers would differentiate between the products in the marketplace. However, for other products, particularly those without substantial cost advantages based on energy efficiency, a panel would have difficulty distinguishing on a principled basis 'ideal' decisions from decisions that the regulator hopes would occur but may not. There are a broad range of reasons why such choices would not occur, even with cost differences between products, such as because the consumers' decisions are based on norms or values that would not result in different choices even with perfect information (such as a taste for SUVs because of status issues).[112]

As a result, in *EC – Asbestos*, the Appellate Body adopted a broad definition of 'like'. Following such an interpretation, most products would be found to be 'like' despite different energy efficiency or emissions, especially where the differences were in non-product related PPMs.[113] Some products may not be found to be 'like' where there is evidence of consumer tastes for cost savings from energy efficiency or environmental concern. However, the panel would have to adopt an aggressive interpretation of the 'idealized' market to find that the products were not like in the absence of such evidence.

3. Is there 'less favourable treatment'?

If the products are found to be 'like', the analysis turns to whether imported products have been accorded 'less favourable treatment'. The test is whether the measure modifies the conditions of competition, such as by raising the costs of only imports. The test goes beyond a mere difference in treatment in individual products but applies to the group as a whole. The Appellate Body in *EC – Asbestos* appears to have opened the door to recognition of regulatory distinctions.[114] What is less clear is whether any 'less favourable treatment' will be covered (whether for a non-protectionist aim or not) or whether it is only protectionist intent that causes a violation. It seems more likely that it is

[111] Howse and Tuerk, above n 81.

[112] D. Hakim, 'Sales of Bid SUVs Rebounded in May', *New York Times*, 3 June 2004 (noting that sales of SUVs increased despite rising gas prices).

[113] Buck and Verheyen, above n 47 (arguing products with different fuel consumed in the manufacturing process are 'like').

[114] Howse and Tuerk, above n 81 and Porges and Trachtman, above n 90.

the former.[115] Even categories innocently produced (such as where differences are based on fuel efficiency and there is no intention to discriminate against imports) will violate Article III if there is a disparate impact on imports as a whole.

Whether there is 'less favourable treatment' will be assessed through examining the entire scope and structure of the legislation or measure to see if the distinction adversely impacts imports as a whole – whether innocently or not. Such an examination may be beneficial if 'innocent' protectionism points to deeper, more structural protectionism in the regulatory process such as non-participation by importers or the public.[116] However, although the Appellate Body has attempted to establish an 'objective' test, the analysis will in fact require a form of discretionary balancing by the dispute resolution body. Marceau and Trachtman note that in exercising this discretion, panels or the Appellate Body 'presumably examine, explicitly or implicitly, whether the less favourable treatment is justified by an appropriate regulatory goal'.[117] Rather than undertaking an explicit examination of the balance between trade and other objectives, the analysis will likely be more hidden, buried within a discussion of the impact on the group of imports. The significance of scientific uncertainty or degree of deference to domestic regulators will then be left to a largely non-transparent exercise of discretion by the individual Panel.[118]

Such a test has the potential to limit the choice by governments of domestic regulatory measures to implement climate change initiatives. In terms of mandatory standards, the categories determined by the domestic regulator may be subject to scrutiny. For example, several years ago Japan proposed different tax rates for certain categories of cars based on engine size and fuel efficiency, in part to address climate change concerns. The EU claimed that given the structure of the measure, it mainly impacted their cars imported into Japan rather than cars made in Japan.[119] In a dispute, a Panel would have to examine the structure of the provisions and determine whether this measure treated imported cars less favourably than domestic cars. It would have considerable discretion to decide whether the measure violated Article III and its focus on 'protection'. Its determination would either be influenced by its view of whether there were legitimate regulatory purposes behind the categories – without a clear framework for analyzing the basis for the regulation – or be independent of the aims and sweep in both protection-motivated and 'innocent' regulation. Given that the latter option can still result in analysis under

[115] Howse and Tuerk, above n 81.

[116] Ibid.

[117] Marceau and Trachtman, above n 77 at 855.

[118] Hudec, above n 78 argues that the rejection of the explicit 'aim and effects' test will not stop panels from using it; it will just continue to remain 'underground'. Similarly how panels approach deference in the face of scientific uncertainty remains underground under the 'objective' test.

[119] Zhang and Assuncao, above n 11.

Article XX, a clear test under Article XX may be preferable to a hidden assessment of purpose under Article III.

The same reasoning would apply to requirements set through voluntary agreements. A panel or the Appellate Body may be influenced by their (favourable or unfavourable) view of the objective or may sweep in both innocent and protectionist regulation. However, its analysis would likely not consider important factors such as whether the negotiations over the standards are closed – that is, between the government and the industry without stakeholder input (either the public or importers). Similarly, a DET program may be challenged where, for example, it does not recognize emission reductions in another country. Products from other countries will then have reduced access to the domestic market if they are required to have credits or emission permits which they cannot acquire.[120] A panel cannot decide whether such distinctions are or are not based on legitimate distinctions without a clearer test to sort out the various competing factors.

Labeling raises similar concerns about the hidden balancing in the test under Article III. Labels could favour domestic industry characteristics to the detriment of imported products. Developing countries are particularly concerned about such impacts, given they may not have the capacity to become involved in deciding appropriate labeling.[121] Yet it is not clear how a panel or the Appellate Body would address such issues about the design of labels. These issues are raised most starkly by PPM labeling. While the jurisprudence is unclear,[122] *EC – Asbestos* may, as noted above, have opened the door somewhat to consideration of regulatory differences based on non-product related PPMs under the 'less favourable treatment' analysis.[123] It is unclear how a panel or the Appellate Body would determine whether such distinctions based on PPMs were legitimate under the current test beyond an intuition about its aim and effects (what Hudec calls a 'smell test').[124]

The analysis for national treatment under the TBT Agreement appears essentially the same as under GATT, although the provisions have not yet been interpreted. As a result, national treatment analysis may constrain domestic regulatory policies concerning climate change. Of course, a state can attempt to treat imports and domestic products exactly equally. However, following *EC – Asbestos*, national treatment analysis of any regulatory categories

[120] Steven Charnovitz, 'Trade and Climate: Potential Conflicts and Synergies' in Pew Centre, *Beyond Kyoto: Advancing the International Effort Against Climate Change* (2003).

[121] Zhang and Assuncao, above n 11.

[122] Marceau and Trachtman, above n 77, at 860.

[123] Howse and Tuerk, above n 81.

[124] Hudec, above n 78. Buck and Verheyen note that one way of avoiding application of the national treatment provisions is to 'privatize' such instruments as labeling to industry associations, taking them out from under the TBT Agreement and likely GATT. Buck and Verheyen, above n 47. Such action would obviously raise concerns about the public participation in the labeling process and the opportunity for industry to create labels, for example, that are both less effective environmentally and restrict international trade.

would result either in a form of implicit balancing of the regulatory purpose and the trade restriction or in a test which captures both innocent and protectionist measures that disproportionately impact imports. Implicitly balancing leaves issues of deference, scientific uncertainty and the regulatory process hidden within the discretion of the dispute resolution body. On the other hand, a broad test which captures both innocent and protectionist impacts on imports has the potential to limit the sovereignty of states in implementing their obligations under the Kyoto Protocol. A broad Article III test is less of a concern under GATT provided there is a clear test under Article XX (although, as discussed below, the test is not currently particularly clear). However, it is a significant concern under the TBT Agreement which has no equivalent exception provision, aside from a presumption in favour of international standards.

III. PROCEDURES, SCIENCE AND UNCERTAINTY

A second set of obstacles to domestic regulatory measures arises from the procedural requirements that states must meet in developing regulations. These requirements can be divided into two broad types. The first type is requirements aimed at the steps necessary to formulate regulations. The second type has both a procedural and substantive aspect – it is the necessity for a scientific basis for regulations.

A. TBT Agreement and procedural requirements

Howse and Tuerk argue that a significant objective of the TBT Agreement is to ensure that the procedural requirements in establishing technical regulations minimize the opportunities for protective measures disguised as non-protectionist policies.[125] The TBT Agreement has a range of obligations designed to foster transparency in regulatory decisions. These obligations include notification to other Members of proposed technical regulations not in accordance with international standards, a duty to provide other Members with an explanation of the justification for technical regulations (both as part of the notification and more generally on request), reasonable time for comments by other Members, consideration of these comments, listing of the final technical regulations (whether or not based on international standards) and publication of regulations.[126] Further the TBT Agreement requires that members establish an enquiry point where other members can obtain information on technical regulations.[127]

A range of possible rationales for these procedural requirements exists. First, they may reduce the possibility of inadvertent discriminatory regulations. The notice and comment requirements allow other parties to gather

[125] Howse and Tuerk, above n 81.

[126] TBT Agreement, Article 2.

[127] TBT Agreement, Article 10.

evidence of discriminatory impact and provide arguments as to other, less trade restrictive alternatives.[128] However, such a positive impact will only occur where the affected states have the resources to both monitor technical regulations of other states and develop evidence of the effect of the regulation. Developing countries are at a distinct disadvantage because of their lack of such resources.

Second, these procedural requirements increase evidence of the decision-making process and the basis for decisions. Such evidence can reduce the difficulty panels or the Appellate Body face in determining whether there has been discrimination. It can illustrate if the regulating state had evidence before it of discriminatory impact and took such evidence into account.

Finally, Howse argues that such provisions lead to an increase in the quality of domestic decisions – as they can increase the information to regulators.[129] He argues that there must be a balance struck between the democracy-enhancing nature of these requirements and the risk that they will delay regulatory action. However, the requirement to provide information on regulatory decisions may lead to regulators obtaining more and better information from their own populations. They can then make better decisions both because they have more complete information and because any rent-seeking is potentially more exposed to public view.

These procedural requirements can act as a constraint on states' actions. Members may be able to use them to challenge how other members made their decisions – such as the lack of speed with which decisions are made.[130] However, in general such procedural requirements are relatively weak, do not mandate decisions and help improve democratic decision-making, a point we will return to in the next section.

B. Science and uncertainty

Central to the ability of states to set their own regulations is the type of evidence they are required to have to base their decisions on and justify them before the WTO. Such evidentiary requirements are particularly important in the case of environmental regulations where there is often considerable uncertainty about the level, or even the existence, of a risk. As Sykes argues, an accommodation between scientific evidence requirements and the ability of states to set their own level of protection against risk 'is exceedingly difficult if not impossible. Meaningful scientific evidence requirements fundamentally

[128] See Robert Howse, 'Democracy, Science and Free Trade: Risk Regulation on Trial at the World Trade Organization', U. Michigan L.R. (2000) 2329.

[129] Ibid.

[130] See M. Busch and R. Howse, 'A (Genetically Modified) Food Fight: Canada's WTO Challenge to Europe's Ban on GM Products' (186 CD Howe Commentary September 2003) (describing how Canada and others were challenging Europe's de facto moratorium on approving new genetically modified food products, in part based on due process requirements under the SPS Agreement specifying that 'control, inspection and approval procedures be "undertaken and completed without undue delay"' (p 5)).

conflict with regulatory sovereignty in all cases of scientific uncertainty'.[131] Sykes makes his argument in the context of the SPS Agreement which has specific provisions relating to such evidence, but the central point is also applicable to decisions under GATT and the TBT Agreement which do not have such provisions.

Both the TBT Agreement and decisions relating to GATT clearly specify that states have the right to set their own level of protection.[132] According to Marceau and Trachtman this 'right' provides scope for states to adopt a precautionary approach in setting their level of protection. However, panels and the Appellate Body will require some evidence on which to base the national treatment test discussed in Part II. Further, as discussed in Part IV, both the TBT Agreement and GATT incorporate a form of balancing test in determining whether measures are 'necessary'. In addressing these balancing tests, panels and the Appellate Body will likely require some scientific evidence.

Unlike the SPS Agreement, neither the TBT Agreement nor GATT explicitly requires a scientific basis for decisions. GATT does not mention scientific requirements and, in assessing risks related to legitimate objectives, Article 2.2 of the TBT Agreement merely states that relevant considerations include 'available scientific and technical information'. The SPS Agreement, on the other hand, requires that the decisions on measures be 'based on scientific principles and . . . not maintained without sufficient scientific evidence'. Decisions under the SPS Agreement have tended to impose a fairly high standard for the necessary scientific evidence, with the Appellate Body finding the information used by the regulating state to be inadequate in a number of decisions.[133] Sykes argues, in this context, that while some lack of evidence seems acceptable to the Appellate Body in the short run, in the long run states will need 'affirmative and convincing scientific evidence . . . to establish the presence of the risk in question. Bona fide concerns about possible risks are not enough.'[134]

Howse argues this high standard under the SPS Agreement may have a beneficial effect in terms of forcing regulators to collect information and provide it to the public and other parties.[135] However, such scientific evidence requirements constrain states as they impose significant costs and time delays on decisions even assuming that states can gather the type of information

[131] Sykes, above n 1, at 355.

[132] TBT Agreement, preamble and Appellate Body Report, *EC – Asbestos*, above n 17 ('it is undisputed that WTO members have the right to determine the level of protection of health that they consider appropriate in a given situation' (p 61)).

[133] WTO Appellate Body Report, *EC – Measures Concerning Meat and Meat Products (Hormones)*, WT/DS26/AB/R, WT/DS/48/AB/R, 13 February 1998; WTO Appellate Body Report, *Australia – Measures Affecting Importation of Salmon*, WT/DS18/AB/R, 20 October 1998; and WTO Appellate Body Report, *Japan – Measures Affecting Agricultural Products*, WT/DS76/AB/R, 22 February 1999. See Sykes, above n 1 and Howse, above n 128.

[134] Sykes, above n 1, at 365.

[135] Howse, above n 128.

requested by the Appellate Body.[136] Perhaps more importantly, they provide significant discretion to the Appellate Body to second-guess decisions by regulating states on the basis of their view of the adequacy of the evidence and the reasonableness of regulating in a given circumstance.[137]

As noted above, the TBT Agreement only requires consideration of available scientific and technical information. In terms of GATT, the Appellate Body in *EC – Asbestos* found that the regulating party did not have to quantify the risk under Article XX(b).[138] It stated that '[a] risk may be evaluated either in quantitative or qualitative terms.'[139] The regulating party can base its decision on existing, less than perfect information.[140] Further, the Appellate Body in *EC – Asbestos* quoted its decision in *Beef – Hormones*, stating:

> In addition, in the context of the SPS Agreement, we have said previously, in European Communities – Hormones, that 'responsible and representative governments may act in good faith on the basis of what, at a given time, may be a divergent opinion coming from qualified and respected sources.' (emphasis added) In justifying a measure under Article XX(b) of the GATT 1994, a Member may also rely, in good faith, on scientific sources which, at that time, may represent a divergent, but qualified and respected, opinion. A Member is not obliged, in setting health policy, automatically to follow what, at a given time, may constitute a majority scientific opinion.[141]

Such an ability of states to act in a manner contrary to the majority of scientific evidence and the right to set their own level of protection may provide scope for states to adopt a precautionary approach.[142]

The standard of proof that the Appellate Body will require to support measures to address climate change is uncertain but will be central to determinations of the validity of the measures under WTO agreements. Kysar notes that 'uncertainty pervades, we might even say defines, the climate change problem.'[143] He points to, among other things, the uncertainty concerning the extent that climate change is caused by greenhouse gas emissions, the impacts of climate change on agriculture, habitat, forests or other aspects of nature, the level of economic growth that will occur absent climate change initiatives and the risk of catastrophic change. To this list could be added

[136] Howse, above n 128, recognizes this potential impact and discusses the need to address the trade-off between time and cost of decision-making and the benefits of deliberation.

[137] Sykes, above n 1.

[138] Appellate Body Report, *EC – Asbestos*, above n 17, at para 167. The requirements of Article XX(b) are discussed in Part IV, below.

[139] Appellate Body Report, *EC – Asbestos*, above n 17, para 167.

[140] Howse and Tuerk, above n 81.

[141] Appellate Body Report, *EC – Asbestos*, above n 17, para 178.

[142] Marceau and Trachtman, above n 77.

[143] Douglas Kysar, 'Climate Change, Cultural Transformation and Comprehensive Rationality', 31(3) Boston College Envl Affairs L.R. (forthcoming).

uncertainty surrounding the effectiveness of different regulatory measures in stabilizing or reducing atmospheric levels of greenhouse gases.

The extent to which the Appellate Body will defer under GATT and the TBT Agreement in the face of such scientific uncertainty remains unclear. It may not require as stringent evidence under these agreements as it appears to under the SPS Agreement.[144] If it adopts a deferential attitude, the scientific evidence criteria are a low hurdle and there is considerable scope for states to regulate but little ability for the WTO to control for de facto discrimination.[145] Because of this inability to police protectionism, the Appellate Body may find it necessary to require that states consider all available evidence and provide proof of such consideration. This latter approach opens the door to reduced deference to the regulatory decisions of states and may involve limitations on states' ability to take action on climate change.[146]

None of this means that the regulating country must have scientific certainty as to the risks of action or inaction. The Appellate Body does not seem to be willing to go that far. However, it has taken a fairly hard look at the evidence on which states have made their decisions under the SPS Agreement. Its approach to evidence under the TBT Agreement and GATT will be central to the degree to which states can take their own paths in implementing climate change measures. As we will see in the next Part, the importance of this approach arises in large part because of the test for determining whether a measure is 'necessary' or least trade restrictive.

IV. EXCEPTIONS AND LIMITS: THE LEAST RESTRICTIVE MEANS TEST

Both GATT and the TBT Agreement attempt to both foster free trade and permit domestic autonomy. The national treatment provisions use the notion of protectionism to address these two goals. However, both agreements also deal with these goals more explicitly – GATT through Article XX and the TBT Agreement through its provisions relating to least trade restrictive means and international standards. As discussed below, these provisions of both agreements rest on a similar form of balancing test.

However, before discussing the test, it is important to note that there is a significant difference between the GATT and the TBT Agreement. Under GATT if no violation of Article III is found, the investigation stops. There is no further review of the substance or process for creating the measure. On the other hand, if there is a violation of Article III, then the country which imposed the measure has an opportunity to defend it under the exceptions provisions of Article XX. Article XX reads in part:

[144] Marceau and Trachtman, above n 77 (arguing that while the TBT Agreement and GATT may require some scientific basis, the 'implicit requirements can be expected to be significantly less rigorous than the explicit requirements of the SPS Agreement' (836)).

[145] Sykes, above n 1.

[146] Sykes, above n 1.

> Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures: . . .
>
> (b) necessary to protect human, animal or plant life or health; . . .
>
> (g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.

However, the TBT Agreement goes much further. Whether or not there is a violation of Article 2.1 (the national treatment provision), the technical regulation has to conform to certain requirements under Article 2.2:

> Members shall ensure that technical regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade. For this purpose, technical regulations shall not be more trade-restrictive than necessary to fulfill a legitimate objective, taking account of the risks non-fulfillment would create. Such legitimate objectives are, inter alia: national security requirements; the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment. In assessing such risks, relevant elements of consideration are, inter alia: available scientific and technical information, related processing technology or intended end-uses of products.

As a result, every technical regulation (and standard under the Code of Good Practice[147]), whether discriminatory or not, is open to such substantive scrutiny as to its trade impacts. Further, under Article 2.5 such regulations are only rebuttably presumed valid if they have a legitimate objective and are set in accordance with international standards.

These provisions of the two Agreements raise differences in the burden of proof that may be important to the outcome of a decision on a measure. The defending state has the burden under Article XX to justify its measure whereas the complaining state likely has the burden under Article 2.2 of the TBT Agreement.[148] However, the differences in impingement on, and view of, sovereignty under these provisions are significantly more important than the issue of burden of proof. The TBT Agreement imposes limits on even non-protectionist measures – that is, even non-protectionist measures must not create unnecessary obstacles to international trade. As Hudec notes, this

[147] TBT Agreement, Annex 3 (Code of Good Practice for the Preparation, Adoption and Application of Standards).

[148] Knox, above n 2 (arguing that the Appellate Body has placed the burden on the challenging party under the SPS Agreement and that, given the similarities between the SPS Agreement and the TBT Agreement, it is likely to also place the burden on the challenging party under Article 2.2 of the TBT Agreement).

limitation on 'unjustified regulation per se' constitutes a new type of 'post-discriminatory' legal standard 'calling for an international tribunal to second-guess the rationality of a regulatory judgment at the national level' even without proof of discrimination.[149]

This Part begins by discussing the concepts of 'least restrictive means' and 'necessary'. It discusses both Article XX and the TBT Agreement together despite the significant difference in their implications for the role of the WTO, as these concepts are central to both. This difference, however, must be borne in mind in predicting how these concepts may be applied in particular cases. After setting out these concepts, this Part discusses their effect on domestic regulatory measures to implement Kyoto.

A. Least restrictive means and necessary

1. GATT Article XX exceptions

Article XX of GATT provides limited exceptions for countries whose measures have been found to violate other provisions of GATT. The panel or the Appellate Body analyses Article XX in two steps.[150] First, it must determine if the measure falls within one of the specified exceptions under Article XX. Second, it must then determine whether the conditions of the prefatory words or 'Chapeau' of Article XX are satisfied. In terms of measures implementing climate change policy, states are most likely to invoke the exceptions under Article XX(g) ('relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption') or Article XX(b) ('necessary to protect human, animal or plant life or health').

Article XX(g): Under Article XX(g) there are three key issues.[151] First, is the measure concerned with 'the conservation of exhaustible natural resources'? Second, does the measure 'relate to' the conservation of exhaustible natural resources? Finally, the regulating state must ensure that the measures are 'made effective in conjunction with restrictions on domestic production or consumption'.

The Appellate Body decision in *US – Reformulated Gasoline* addressed Article XX(g) in a context that has parallels to climate change policies.[152] In that case, the US had adopted measures specifying the composition of gasoline as part of its efforts to address air pollution. These measures required the use of reformulated gasoline in certain regions. They also required measuring the composition of both reformulated and conventional gasoline against the quality of gasoline in 1990. Domestic refiners could establish the quality of gasoline

[149] Robert Hudec, 'Science and "Post-Discriminatory" WTO Law', 26 B.C. International & Comparative L.R. 185 (2003) at 187–88.

[150] Appellate Body Report, *US – Reformulated Gasoline*, above n 44.

[151] WTO Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products (US – Shrimp I)*, WT/DS58/AB/R, adopted 6 November 1998.

[152] Appellate Body Report, *US – Reformulated Gasoline*, above n 44.

in 1990 by providing certain data, including data which allowed estimation of 1990 levels if actual data were not available. Importers, on the other hand, were assigned a statutorily specified 1990 baseline unless they had actual data on their individual 1990 gasoline quality. The US argued that importers could not be allowed to use alternate methods of calculating 1990 levels because of the administrative difficulties in ensuring they were accurate. Brazil and Venezuela challenged the measures as being, among other things, inconsistent with Article III.4 (national treatment).

The Panel found that the measures were inconsistent with Article III.4 and were not saved by Article XX(g). The US appealed aspects of the ruling under Article XX(g). The Panel found that clean air was an exhaustible natural resource as it was a resource, was natural, could be depleted and was renewable.[153] This aspect of the ruling was not appealed. The Appellate Body did, however, subsequently follow this broad approach to the term 'exhaustible natural resource'. In *US – Shrimp I* it emphasized the importance of interpreting Article XX(g) in accordance with evolving global concerns and used international agreements to aid in interpretation. It also found that natural resources included not just mineral resources but living resources such as turtles.[154] Howse notes that in *US – Shrimp I*, the Appellate Body concluded that this term 'could, in principle, provide a legal basis for unilateral trade measures to protect the global environment, in this case endangered species of sea turtles even where directed against other countries' policies'.[155]

The US did, however, appeal the Panel's ruling that the measures concerning the composition of gasoline did not 'relate to' the conservation of exhaustible natural resources. The Appellate Body began by interpreting 'relating to' as 'primarily aimed at' the conservation of exhaustible natural resources.[156] It found in this case that the measures were designed to permit monitoring of compliance with the measures and such monitoring was not possible without baselines. This 'substantial relationship' between the baseline rules and the objective of the measures meant the baseline requirements could not 'be regarded as merely incidental or inadvertently aimed at the conservation of clean air in the United States'.[157] The Appellate Body subsequently appeared to broaden the interpretation of the term 'relating to' in *US – Shrimp I* to mean 'reasonably related to the ends'.[158] This means-ends test examines

[153] WTO Panel Report, *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS2/R, 29 January 1996, para 6.37.

[154] Appellate Body Report, *US – Shrimp I*, above n 151.

[155] R. Howse, 'From Politics to Technocracy – and Back Again: The Fate of the Multilateral Trading Regime', 96 Amer. J. International Law 94 (2002) at 111.

[156] Appellate Body Report, *US – Reformulated Gasoline*, above n 44, pp 18–19.

[157] Ibid.

[158] Appellate Body Report, *US – Shrimp I*, above n 151 para 141. This test appears less strict than the 'primarily aimed at' test but see Knox, above n 2 (arguing it is unclear if this test will make a practical difference).

whether the means is disproportionately wide in its scope or has a close relationship to the end.[159]

Finally, the Appellate Body in *US – Reformulated Gasoline* set a low threshold for whether a measure was 'made effective in conjunction with restrictions on domestic production or consumption'. It held that only 'even-handedness' in restrictions between domestic and foreign producers was required. It did not require identical treatment, only that some measures were imposed on domestic producers.[160]

One further issue is whether Article XX(g) has any territorial limitations. Under the first *US – Tuna* decision, the Panel found that states could only apply the Article XX(g) exception to natural resources within their own jurisdictions. The Appellate Body in the later *US – Shrimp I* decision did not take a position on whether there was a jurisdictional limit in Article XX(g). However, it did note that while not all species of sea turtles enter US water, some do and this is a 'sufficient nexus' to the US to allow application of Article XX(g).[161] This decision is not a full acknowledgement of the ability of states to take extraterritorial action but does extend the potential reach of states.

Article XX(b): While the exception under Article XX(g) has been read broadly, the test under Article XX(b) for measures 'necessary to protect human, animal or plant life or health' is somewhat stricter. The key to determining whether a measure fits within Article XX(b) is the meaning of the term 'necessary'. The test under *US – Section 337* had been that 'necessary' imported the notion that there is no alternative that the state could reasonably be expected to employ that was less inconsistent with GATT.[162] In *Korea – Beef*, the Appellate Body expanded on the 'necessity' test, holding that it requires a 'weighing and balancing' of a range of factors.[163] It stated that three principal factors to be considered in this balancing are (i) the importance of the objective or common interest that is the target of the measure; (ii) the effectiveness of the measure at meeting the target; and (iii) the impact of the measure on international trade.[164] This balancing test informed the determination of whether the alternative was reasonable.

In *EC – Asbestos*, the Appellate Body brought this balancing test into Article XX(b).[165] The Appellate Body clearly stated that the regulating state has a right to set its own level of protection. In addressing the test for 'necessary',

[159] Marceau and Trachtman, above n 77.

[160] Appellate Body Report, *US – Reformulated Gasoline*, above n 44, pp 20–22. This approach was followed in Appellate Body Report, *US – Shrimp I*, above n 151, paras 143–45.

[161] Appellate Body Report, *US – Shrimp I*, above n 151, para 133.

[162] GATT Panel Report, *United States – Sect. 337 of the Tariff Act of 1930*, L/6439-369/345, adopted 7 November 1989. See Jan Neumann and Elisabeth Turk, 'Necessity Revisited: Proportionality in World Trade Organization Law after *Korea – Beef*, *EC – Asbestos* and *EC – Sardines*', 37(1) J. World Trade (2003) 199.

[163] Appellate Body Report, *Korea – Beef*, above n 55, para 164.

[164] See section (C) below for a discussion of the balancing under *Korea – Beef*.

[165] Neumann and Turk, above n 162.

the Appellate Body referred to the weighing and balancing language of *Korea – Beef*. However, it discussed only the contribution of the measure to the goal and the importance of the goal. Neumann and Turk argue that it did not discuss the trade impacts because the goal (human health) was very important, the measure was a ban (the most severely trade impacting measure) and the ban was deemed indispensable to meeting the goal.[166] In the result, the Appellate Body did not find the alternative, controlled use, to be equally effective at meeting the state's ends.

2. The chapeau

Even if a measure falls within one of the exceptions under Article XX, it must also comply with the conditions of the chapeau of Article XX. The chapeau prohibits measures from being 'applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade'. The TBT Agreement and the FCCC also refer to arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade.[167] Decisions relating to Article XX may give some indication of how these terms will be interpreted in each context.

Decisions under Article XX have emphasized that the chapeau addresses how measures are applied and is largely aimed at limiting abuse of the exceptions.[168] The chapeau imports a notion of good faith of the parties.[169] The Appellate Body in *US – Shrimp* stated that applying the chapeau involved the search for a 'line of equilibrium between the right of member to invoke an exception under Article XX and the rights of the other members under varying substantive provisions (e.g. Article XI) of the GATT 1994, so that neither of the competing rights will cancel out the other and thereby distort and nullify or impair the balance of rights and obligations constructed by the Members themselves in the Agreement.'[170]

The location of the line varies with the measures at issue. As part of this balancing, the Appellate Body appears to have used a least restrictive means or necessity test in the context of measures justified under Article XX(g).[171] As a result, even though Article XX(g) itself does not include a 'necessity' requirement, the Appellate Body has imported the requirement into the chapeau.[172] In addition, the Appellate Body has examined two factors in

[166] Ibid.

[167] TBT Agreement, preamble and FCCC, Article 3.5.

[168] Appellate Body Report, *US – Reformulated Gasoline*, above n 44, p 22.

[169] Appellate Body Report, *US – Shrimp I*, above n 151, para 158. Neumann and Turk, above n 162.

[170] Appellate Body Report, *US – Shrimp I*, above n 151, para 159.

[171] Marceau and Trachtman, above n 77. See also Neumann and Turk, above n 162 (arguing that necessity is one element of the test under the chapeau but that the chapeau does not consist of a strict proportionality test).

[172] Hudec, above n 78.

assessing compliance with the chapeau requirements. First, the measure must be applied in a flexible manner such that the regulating state permits regulations in exporting countries that provide comparable levels of protection or effectiveness.[173]

Second, the Appellate Body has imported the need for good faith efforts to reach a multilateral agreement on the particular issue. In *US – Reformulated Gasoline*, the Appellate Body found that the US had not adequately explored cooperation with Venezuela and Brazil as a means of mitigating the administrative problems with the measures. In combination with the US consideration of the costs of the measures to US but not foreign refiners, the Appellate Body found the conditions of the chapeau were not met as the 'resulting discrimination must have been foreseen, and was not merely inadvertent or unavoidable'.[174]

Similarly, in *US – Shrimp I*, the Appellate Body took into account whether the US engaged in serious attempts to negotiate with other countries in determining whether the conditions in the chapeau were met. The Appellate Body found that the US had not attempted to negotiate with certain exporting countries and therefore did not satisfy the chapeau.[175] In a subsequent decision on whether the US was complying with this initial decision, the Appellate Body held that the regulating state did not have to complete negotiations with the exporting states, but only need engage in 'serious, good faith efforts' to reach an agreement.[176] The Appellate Body thus has appeared in *US – Shrimp* to sanction multilateral environmental agreements between parties as satisfying the chapeau as well as good faith negotiations towards such an agreement.[177]

3. TBT Agreement limits

Article 2.2 of the TBT Agreement has not yet been interpreted. It essentially requires that states use the least trade restrictive means for achieving a legitimate objective. Further, Article 2.2 takes into account the risks of not attaining the objective. As a result, on its face, the language of Article 2.2 accords with the test laid down for 'necessary' under Article XX of GATT.[178] However, there is some uncertainty because its differing implications for the role of the

[173] In Appellate Body Report, *US – Shrimp I*, above n 151, the Appellate Body held the US had not satisfied the conditions of the chapeau on the basis that the US mandated that exporting states have essentially the same requirements as its own rather than requirements with similar levels of effectiveness. While the statutory provisions on their own appeared to permit flexibility, the actual decisions and policies of its application negated any such flexibility. Further, it held the measures were 'arbitrary' as the US did not have a transparent, predictable certification process which permitted other countries to be heard or to appeal a decision. See Knox, above n 2.

[174] Appellate Body Report, *US – Reformulated Gasoline*, above n 44, p 28.

[175] Appellate Body Report, *US – Shrimp I*, above n 151, paras 166–171.

[176] WTO Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products (US – Shrimp II)*, WT/DS58/AB/RW, adopted 21 November 2001, para 134.

[177] Knox, above n 2.

[178] See Neumann and Turk, above n 162 and Marceau and Trachtman, above n 77.

WTO (that is, potentially applying these requirements in absence of discrimination) may impact its interpretation.

There is an additional emphasis under the TBT Agreement on the use of international standards as 'a basis for' technical regulations, where such standards exist or are imminent and they are not 'ineffective or inappropriate'.[179] Further, Article 2.5 states:

> Whenever a technical regulation is prepared, adopted or applied for one of the legitimate objectives explicitly mentioned in paragraph 2, and is in accordance with relevant international standards, it shall be rebuttably presumed not to create an unnecessary obstacle to international trade.

A state may therefore insulate itself to a certain extent from a finding that a measure violates Article 2.2 by adopting international standards. Unfortunately there is no definition of 'international standards' or even relevant standard-setting bodies, unlike in the SPS Agreement.[180] The *EC – Sardines* decision dealt with the issue of whether an international standard was 'ineffective or inappropriate'.[181] The Appellate Body found that the burden was on the complaining party to prove that the international standard was effective and appropriate. It further found that, contrary to the EC's argument, the international standard did not have to be adopted by consensus.[182] In addition, referring to *EC – Hormones*, the Appellate Body stated that 'as a basis for' means 'principal constituent', 'fundamental principle', 'main constituent' or 'determining principle' and that there must be 'a very strong and very close relationship between two things'.[183] However, they declined to adopt a more precise definition of the term, stating that at the very least it means the technical regulation cannot contradict the international standard. On the facts, they found the technical regulations and the international standard to be contradictory and therefore that the international standard was not used as a basis for the technical regulation. Finally, the Appellate Body agreed with the Panel that, for the purposes of Article 2.4, 'an ineffective means is a means which does not have the function of accomplishing the legitimate objective pursued, whereas an inappropriate means is a means which is not specially suitable for the fulfillment of the legitimate objective pursued'.[184]

This explicit emphasis on international standards under the TBT Agreement is different at least from the wording of GATT – although, as noted above, the *US – Shrimp* decisions found that international negotiations count towards satisfying the chapeau of Article XX. Further, unlike GATT, the

[179] TBT Agreement, Article 2.4.

[180] Trebilcock and Howse, above n 1.

[181] Appellate Body Report, *EC – Sardines*, above n 46.

[182] Howse and Trebilcock, above n 1 argue that lack of consensus has a profound impact on the legitimacy of the standard.

[183] Appellate Body Report, *EC – Sardines*, above n 46, paras 240–45.

[184] WTO Panel Report, *EC – Sardines*, WT/DS231/R, 22 May 2002, at para 7.116.

TBT Agreement also encourages Members to 'give positive consideration to accepting as equivalent technical regulations of other Members, even if these regulations differ from their own, provided they are satisfied that these regulations adequately fulfill the objectives of their own regulations.'[185] This requirement is similar to the flexibility requirement under the chapeau. The TBT Agreement therefore places similar but more explicit emphasis than GATT (as currently interpreted) on finding cooperative solutions to environmental concerns as a means of avoiding trade disputes.

B. Balancing trade and regulatory decisions

What then do the tests entail and how do they impact on the autonomy of states to choose their own means of implementing climate change policy? In both decisions on GATT and in the TBT Agreement, the state has been found to have discretion to set its own level of protection or its own objective.[186] As neither agreement incorporates the language from the SPS Agreement referring to the need for a scientific basis, the state may have considerable discretion as to the choice of end to pursue. However, the importance of the end comes into the test of 'necessity' in both GATT and in the TBT Agreement (through the risks of non-fulfillment).[187] In addition, as noted above, as the interpretation of the chapeau has taken the form of a necessity or least restrictive means test, there is a similar form of balancing test that takes place under the chapeau in the search for the 'line of equilibrium'.

There is some disagreement about the type of balancing that occurs under these tests. Neumann and Turk state that the 'necessity' test under GATT is similar to the test under Article 2.2 of the TBT Agreement. In neither case, however, do they view the test as being one of proportionality – that is, comparing the importance of the end to the cost in terms of trade restrictions. Instead they see it as requiring balancing in the case of means that are not indispensable (that is, not absolutely necessary to meet the ends). 'Alternative measures do not only have to be equally effective in the attainment of the legitimate objective. Any alternative also has to be reasonably available, taking into account the importance of the aim, the effectiveness of the measure and its trade restrictiveness.'[188] The result is some measure of deference to the choices of domestic regulators, particularly on the ends of the regulation but also to a certain extent in the means provided they are as effective.

Further, Neumann and Turk argue that the Appellate Body is not willing to examine the domestic objectives in the case of 'dispensable' means. There

[185] TBT Agreement, Article 2.7. See Marceau and Trachtman, above n 77 (arguing that *US – Shrimp* implies a 'soft' equivalency requirement).

[186] In terms of GATT, see Appellate Body Report, *EC – Asbestos*, above n 17. In terms of the TBT Agreement, see the 6th preamble statement referring to the ability of each Member to choose the appropriate level of protection. Marceau and Trachtman, above n 77.

[187] Marceau and Trachtman, above n 77.

[188] Neumann and Turk, above n 162, at 226.

may be a role for such an examination in the case of indispensable means – but only where the objective is not explicitly listed in the agreement. They note that it is not clear if future decisions will use a proportionality test to weigh the legitimacy of the end against the trade-restrictiveness of the means.[189]

In addition, Neumann and Turk do not find a proportionality or balancing test in the chapeau of Article XX. They agree that a necessity test is one possible element in determining if the measure is arbitrary or unjustifiable. However, they argue that the Appellate Body has never required a strict proportionality test weighing the ends and trade restrictions. They note that in discussing the 'line of equilibrium' in *US – Shrimp* the Appellate Body did not question the objective or level of protection chosen by the US. It looked to whether the US ignored measures of other countries that were equally effective, whether the measure was necessary in a geographic and temporal sense and whether the measure was solely based on country of origin. Neumann and Turk argue that this was not a proportionality test but just a weaker necessity test.[190]

Sykes, on the other hand, views the 'necessity' test under Article XX and in Article 2.2 of the TBT Agreement to be a 'crude cost-benefit analysis, constrained by an awareness of error costs and uncertainty'.[191] While WTO bodies do not quantify the costs and benefits of measures, Sykes argues they are more likely to find regulations to be necessary when the alternative may not be as effective at reaching the objective, meeting the objective is important (that is, error costs are high) and the alternative is not significantly less trade restrictive. However, he notes that even less effective means may be considered 'reasonable' alternatives if the Panel or the Appellate Body does not view the end as sufficiently important and the alternative is significantly less trade restrictive.[192] The cost to the regulators is not a sufficient factor to find that the alternative is not reasonable if the alternative is as trade restrictive and as effective.[193] This interpretation of the Article XX 'necessary' test accords with the wording of Article 2.2 of the TBT Agreement – as it requires that measures not be more trade-restrictive than necessary to fulfill a legitimate objective 'taking account of the risks non-fulfillment would create'.[194]

The tests for 'necessity' and 'least restrictive means' therefore import a balancing of a range of factors. This necessity test is part of the analysis under the chapeau of Article XX and therefore, while not part of the Article XX(g)

[189] Neumann and Turk, above n 162.

[190] Neumann and Turk, above n 162.

[191] A. Sykes, 'The Least Restrictive Means', 70 University of Chicago L.R. (2003) 403, at 404.

[192] Sykes, above n 191. See also Howse and Tuerk, above n 81.

[193] See, for example, GATT Panel Report, *Thailand – Restrictions on Importation of and Internal Taxes on Cigarettes*, DS10/R – 37S/200, adopted 7 November 1990. Sykes, above n 191.

[194] Marceau and Trachtman, above n 77. However, the Appellate Body in *EC – Sardines*, above n 46 stated that there must be an examination of the legitimacy of the objectives in the context of Article 2.4. This examination implies a greater role for the panel in assessing the goals of domestic legislation than under GATT.

analysis, applies even when a country is relying on Article XX(g). The panel or Appellate Body will assess the importance of the end and the effectiveness and trade-restrictiveness of the means in most cases. Such analysis provides significant scope for second-guessing domestic decisions. The next section will examine the impact of this test on domestic climate change measures.

C. Balancing, Kyoto and domestic regulatory measures

Before examining the necessity test in the context of climate change, it is important to consider briefly whether domestic regulatory measures are likely to fit within Article XX(g). A key issue is whether the climate or atmospheric greenhouse gas concentrations will be taken to be an 'exhaustible natural resource'. Climate or 'cool air' could be considered to fall directly within the scope of Article XX(g) as the Appellate Body has found that this exception should be interpreted in light of evolving global environmental concerns.[195] Scientific evidence of global impact, as well as the existence of the FCCC and the Kyoto Protocol, could be taken as evidence of the importance and urgency of climate change and therefore that climate or 'cool air' should be considered an 'exhaustible natural resource'. Climate change action may also indirectly fall under Article XX(g) given the other potentially damaging environmental conditions that may arise such as impacts on biodiversity and ecosystems.[196] A panel or the Appellate Body may therefore find that climate change and concentrations of GHG fall within the term 'exhaustible natural resource'.[197]

While there is some uncertainty over whether domestic measures fall within Article XX(g), the harder question arises from the balancing under the 'necessity' test. The main difficulty arises because of the inherent uncertainty surrounding the issue of climate change. There may be widespread acknowledgement that climate change is an important global issue; however, as noted above, there is significant uncertainty about a host of related issues. This uncertainty relates to the nature of the goal of climate change action, the timing necessary for action as well as the relative effectiveness of various means for addressing climate change.[198] The extent of this uncertainty makes the application of the basic framework in *EC – Asbestos* unclear as the Appellate Body in that case seemed influenced by the degree of certainty surrounding the potential harm, the need for immediate action and the necessity of the ban to address the risk.

[195] Appellate Body Report, *US – Shrimp I*, above n 151. See Sampson, above n 100.

[196] Buck and Verheyen, above n 47.

[197] Swedish National Board of Trade, above n 33. Each measure will also have to meet the other elements of Article XX(g) – that the measure 'relates to' climate change and is 'made effective in conjunction with restrictions on domestic production and consumption'. However, these tests do not appear to impose a high hurdle.

[198] Kysar, above n 143.

Using Sykes' interpretation of the test as one of a 'crude cost-benefit analysis', a range of considerations arise with respect to both the overall objectives of a state as well as the choice of instrument in the context of climate change. First, one of the key factors will be the importance of the objective. Will panels take climate change to represent a grave risk or a somewhat lesser risk? Climate change raises serious risks to the environment and to human health, and international agreements and negotiations reflect concern about these risks.[199] However, these risks may not be viewed as sufficiently strong to warrant a strong presumption in favour of the regulating country – unlike the case of asbestos where there was evidence of a grave risk to human health. A panel or the Appellate Body may view climate change as an important issue but be influenced by lack of consensus around the timing of required action or the potential impact of climate change on the environment or human health. To the extent that there is some uncertainty, the panel or Appellate Body may be less willing to find a particular measure to be 'necessary'. Further, the presence of the Kyoto Protocol may hinder state action. A panel or the Appellate Body may discount or give less weight to actions by a state that are aimed at reducing greenhouse gas emissions at a greater rate than they committed to under the Kyoto Protocol.[200]

Second, there is an important connection between the objective of the regulating country and whether the instrument chosen is 'indispensable' to meeting that objective. As noted above, the TBT Agreement and decisions under GATT state that members may set their own level of protection. This level ties into both the importance of the objective and the degree to which the measure at issue is 'indispensable' to meeting that objective. The balancing under Article XX or the TBT Agreement will depend on how broadly the panel or Appellate Body permits the regulating country to specify its objective. The more broadly stated is the objective, the less indispensable a particular measure is likely to appear and the more the panel or the Appellate Body may be willing to find reasonable alternatives to a measure. Is the objective to meet a specific overall emissions reduction target under the Kyoto Protocol? Is it to meet a specific regional target set by the domestic government (such as equal reductions across all regions of a country like Canada)? Is it to meet a sectoral target set by the domestic government (such as equal reductions across all sectors of the economy or lower reductions in a sector which is particularly important to the domestic economy)?

In part, this issue rests on the degree of deference a panel or the Appellate Body will give to a regulating state in specifying the end. In *EC – Asbestos*, Canada argued that France ignored the risks from substitutes to asbestos and therefore may have been causing an increased risk to its citizens. The Appellate

[199] Buck and Verheyen, above n 47 and Swedish Board of Trade, above n 33.

[200] Bruce Pardy, 'The Kyoto Protocol: Bad News for the Global Environment', J. Environmental Law and Practice (forthcoming) (arguing that the Kyoto Protocol may diffuse political pressure for action on climate change).

Body refused to take this into account or to redefine the objectives for France.[201] The Appellate Body took a similar view in *EC – Hormones*. It refused to consider requiring the EC to examine or equally regulate other sources of hormones such as those occurring naturally in particular products.[202] However, more recently in *Australia – Salmon*, the Appellate Body examined the Australian measures to protect its salmon population from disease. The Appellate Body took into account the lack of regulation by Australia of other activities that caused greater risk to its salmon than the importation of uncooked salmon. As Australia did not provide a justification for not regulating these other risks, the Appellate Body found the ban to be in violation of the SPS Agreement.[203]

As a result, while GATT and the TBT Agreement do not contain an explicit requirement that there be consistency in regulation by states, Article XX of GATT (and likely the TBT Agreement) may import a form of 'soft consistency requirement'.[204] If, for example, there is a lack of consistency in the regulation of emissions from different sectors, a panel may use this as evidence that there is a reasonable alternative. However, avoiding inconsistencies may require narrowing comparisons in a 'superficial' way.[205] Governments may have difficulty designing any domestic climate change measures unless they are broadly based (such as labels aimed at reductions across all sectors). However, many governments are aiming regulations or a DET program at specific industries, in part in order to take action where it is most effective. In any event, the scope of the target and the deference by a panel or the Appellate Body to the state's choice of target will be central to the analysis of the measure. The more narrowly defined is the target, the less scope there is for second-guessing the choice of instrument.

Third, the balancing test takes into account the effectiveness of particular measures. However, there is considerable uncertainty about the effectiveness of different regulatory measures in the context of climate change. Mandatory standards may be effective in some contexts – such as where the abatement costs are homogeneous across regulated parties. However, there is evidence that they are more costly than other measures and do not provide incentives to go beyond regulated levels or to innovate.[206] The evidence concerning voluntary approaches and eco-labels is even more equivocal. Although the evidence is limited, voluntary approaches appear not to be particularly effective in meeting environmental objectives.[207] In terms of eco-labels, the evidence on effectiveness is also sparse but appears to be that they have only a limited

[201] Appellate Body Report, *EC – Asbestos*, above n 17.

[202] Appellate Body Report, *EC–Hormones*, above n 133.

[203] See Sykes, above n 1 and Marceau and Trachtman, above n 77.

[204] Marceau and Trachtman, above n 77, at 847.

[205] Sykes, above n 1, at 368.

[206] Jaccard, Rivers and Horne, above n 23.

[207] Harrison, above n 30.

positive impact on meeting environmental objectives in many contexts.[208] DET programs, on the other hand, potentially significantly reduce emissions at low cost, given the experience in the US.[209]

Fourth, the balancing also takes into account the impact on trade. Various instruments could be thought of as lying on a continuum of trade impacts. Buck and Verheyen argue that eco-labels are the least trade-distorting of the instruments and therefore they are likely to satisfy Article XX.[210] At the other extreme, a ban would obviously have the greatest impact on trade. In between these two options, there are economic instruments, performance standards and design standards, in increasing potential impact on trade.

Finally, connected to the issue of necessity and the requirements of the chapeau of Article XX is the issue of international negotiations, international standards and recognition of the regulations of other states. This issue is particularly important for the ability of states to adopt non-product related PPMs to address climate change (such as the emissions of greenhouse gases in the production of the product). The FCCC itself will not likely meet the requirements for international negotiations under the chapeau as it only provides a framework for further negotiations.[211] The Kyoto Protocol provides evidence of serious efforts to negotiate an agreement but it does not specify the means that states must take to meet their targets. Neither could therefore be used to ground arguments that there have been negotiations over specific instruments to reduce greenhouse gas emissions, particularly non-product related PPMs. There would have to be further negotiations on specific instruments or international standards.[212] Further, there are few international standards relating to such issues as product characteristics or labeling and the process to develop such agreements or standards would likely take considerable time.[213]

The balancing requirement under the chapeau therefore raises a range of issues in the context of climate change. The degree of scientific uncertainty, the lack of international negotiations or international standards and the significant potential for trade distortion by certain instruments increases the probability of a panel finding against the regulating state. However, this probability varies by instrument and with the actions of regulating states. States can attempt to increase the likelihood that measures will survive a WTO challenge such as by adopting broad-based measures, engaging in international negotiations and

[208] Kathryn Harrison and Werner Antweiler, 'Toxic Release Inventories and Green Consumerism: Empirical Evidence from Canada', 36(2) Canadian J. Economics (2003) 495, and Buck and Verheyen, above n 47.

[209] Richard Stavins, "Market-Based Environmental Policies: What Can We Learn from U.S. Experience (and Related Research)' (Presentation for '20 Years of Market-Based Instruments for Environmental Protection' 2003).

[210] Buck and Verheyen, above n 47.

[211] Ibid.

[212] Ibid.

[213] Zhang anvd Assuncao, above n 11 and Swedish National Board of Trade, above n 33.

choosing more flexible measures (such as eco-labels). However, as noted below, such actions may reduce the timeliness and effectiveness of addressing climate change.

V. CLIMATE CHANGE, INSTRUMENT CHOICE AND TRADE RULES

In establishing national treatment rules and the various forms of balancing, '[d]efenders of the [WTO] system regularly insist that the tension [between sovereignty and free trade] is illusory, and that WTO rules do not intrude on proper national prerogatives.'[214] However, in the case of climate change policies, potential constraints on sovereignty arise from (i) national treatment rules that limit the ability of states to introduce non-product related PPMs as well as, potentially, innocent regulatory distinctions; (ii) scientific evidence requirements to the extent they place hurdles in the path of states attempting to justify climate change action; and (iii) balancing rules that provide less deference to domestic regulatory decisions in the face of scientific uncertainty. As Sykes notes in the case of the scientific evidence requirement under the SPS Agreement, a panel or the Appellate Body may interpret these constraints with significant deference to domestic decisions in which case they play little or no role in policing protectionist action. On the other hand, as has been more generally the case, they can use these rules to second-guess the decisions of governments, in which case they could significantly limit sovereignty.[215] While *EC – Asbestos* appears to provide some scope for a middle ground, the Appellate Body seems to have been swayed by the significant scientific consensus around the health risk. How panels and the Appellate Body will decide in the face of the significant uncertainty underlying climate change is not clear. This lack of clarity may enhance regulatory chill.[216]

These issues of scientific uncertainty and differing values could be addressed in a variety of manners including through specific negotiations or actions on particular issues, through global governance changes or through modifications to the dispute resolution mechanism. First, in terms of specific negotiations or actions around particular issues, most commentators on WTO rules and climate change point to the need for states to ensure they have transparent, well-documented regulatory processes and to engage in international negotiations over the use of specific instruments to combat climate change.[217] These actions are valuable but insufficient. The suggestions concerning regulatory

[214] Sykes, above n 1, at 368.

[215] Sykes, above n 1.

[216] Buck and Verheyen, above n 47.

[217] See, for example, Charnovitz, above n 120 (arguing that the goals of the WTO and the Kyoto Protocol are not inconsistent and that states need to work together through negotiating international standards and rules on taxes on energy, opening markets for environmental and energy goods and services, expanding subsidies law, safeguarding ecolabels, improving coordination between the WTO and parties to the FCCC and integrating climate and trade bargaining); Loose, above n 8 (arguing for effective communication and cooperation between the WTO and the parties to the Kyoto Protocol); Buck and

processes may help reduce the possibility of regulations being found in violation of WTO rules in some cases but they do not aid in reducing the discretion of WTO panels or the Appellate Body in the face of significant scientific uncertainty. Moreover, they aid but do not eliminate the possibility that climate change policy can be used to protect domestic industries as there are many reasons states can give to attempt to justify a given set of regulatory decisions.[218] Further, international negotiations can take a long time, can be biased against countries or interests that do not have the resources to be represented in the negotiations, may not take account of variances between countries in terms of values or context, may lead to adopting a low standard to which all agree (which may be difficult for states to exceed) and may take too long to be of practical value.[219] International negotiations on a case-by-case basis are therefore beneficial and likely aided by suggestions to foster cooperation between MEA and WTO bodies but are likely insufficient, overly time consuming and costly.

Second, some commentators call for greater explicit balancing of trade and environment (and other issues) at the international level. For example, Guzman has argued for such balancing to be conducted through the WTO.[220] Speth, on the other hand, has argued for a new governance structure, potentially under the United Nations, to address issues crossing the trade and the environment areas.[221] However, such an international body raises issues of increased interest group influence at the international level as well as a reduction in regulatory competition.[222] Further, an international agreement setting out a single approach to trade and environment issues will be difficult to obtain, given the variety of potential issues and scope for disagreements.

Third, other commentators believe that the dispute settlement mechanism at the WTO is best able to deal with these issues on a case-by-case basis,

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Verheyen, above n 47 (arguing for states to adopt transparent, non-discriminatory rules, to promote cooperation between the WTO and parties to the FCCC, to bring the Kyoto Protocol into force and to cooperate on international standards); Zhang and Assuncao, above n 11 (arguing for strengthening of the FCCC and the Kyoto Protocol with follow up multilateral instruments and coordination between the WTO and the parties to the FCCC and Kyoto Protocol) and Swedish National Board of Trade, above n 33 (arguing for states to cooperate on standards or at least guidelines for the design of standards, to avoid disputes through appropriate regulations and regulatory processes, to use consultative processes rather than dispute settlement processes and to foster international agreements).

218 Sykes, above n 1.

219 Zhang and Assuncao, above n 11. See also James Gustave Speth, *Red Sky at Morning: America and the Crisis of the Global Environment* (New Haven: Yale University Press, 2004) (arguing that in the area of the environment, there have been only weak multilateral institutions, consensus negotiating has led to 'mostly toothless treaties' and treaties have tended to ignore the social and economic context for implementation (116)).

220 See, for example, Andrew Guzman, 'Global Governance and the WTO', 45 Harvard International L.J. (2004, forthcoming). But see Howse, above n 155.

221 Speth, above n 219.

222 J. McGinnis and M. Movsesian, 'Against Global Governance in the WTO', 45 Harvard International L.J. (2004, forthcoming).

particularly with recent shifts by the Appellate Body towards incorporating other international agreements and providing opportunities for a broader range of stakeholders and experts to present views.[223] Further, Howse argues that allowing the WTO system to police regulatory decisions for protectionism can promote deliberative democracy by governments.[224] This impact on domestic decision-making can go a long way to overcoming the issues surrounding economic protectionism and environmental protection.[225] However, while there have been positive changes to the dispute settlement mechanism, continued progress is required such as through greater transparency and increased participation by third parties such NGOs.[226]

The debate over climate change hinges on values – how we value the environment, how we value the relationship of humans and nature, how important we feel are the advantages of free trade. The institutional framework will determine whose values prevail. The decision cannot be left to a supposedly neutral appeal to science because of the lack of information but also because even with perfect information there will still remain a wide range of issues science cannot decide related, for example, to environmental values, preferences for risk, and intergenerational equity.[227] WTO rules and decisions refer to the right of states to make these value trade-offs for their own citizens. However, the current system tends to deal unsatisfactorily and unclearly with such trade-offs in the face of scientific uncertainty. Further, none of the above possibilities for reform is entirely satisfactory. A more promising approach seems to be Howse's argument for a revised approach by the WTO which both fosters greater democratic experimentation domestically (while protecting against beggar thy neighbour policies) and promotes greater democratic legitimacy both domestically and within the WTO. Unfortunately, the specific form of such an approach is not entirely clear.[228] However, what is clear is that the debate about the direction for institutional change will be central for improving how, or if, global environmental issues such as climate change will be addressed.

[223] See, for example, Knox, above n 2. See also Howse, above n 155 (arguing that the Appellate Body has shown in a number of decisions that it can reach decisions with legitimacy in cases where there are contested values).

[224] Howse, above n 128.

[225] Speth, above n 219 (arguing for the need to improve domestic decisions of governments around the world to aid in addressing global environmental issues).

[226] Donald McRae, 'What is the Future of WTO Dispute Settlement?', 7(1) JIEL (2004) 3.

[227] Kysar, above n 143 (discussing the pervasiveness of a range of uncertainties surrounding climate change).

[228] Howse, above n 155 (arguing that democratic decision-making within the WTO would be improved, for example, by eliminating the secrecy of WTO dispute settlement proceedings and providing greater voice to nongovernmental actors in negotiations).