Carbon Leakage Measures and Border Tax Adjustments under WTO Law

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1. Introduction[1]

One of the major obstacles toward the adoption of mandatory limits on greenhouse gas emissions is the impact of such limits on the international competitiveness of domestic firms. Limits on greenhouse gas emissions – be they in the form of regulation, a carbon tax or a cap-and-trade system[2] – may impose extra costs on domestic industries. Where foreign firms do not bear similar costs, domestic firms may lose their competitive edge. In particular, with a domestic climate policy in place, imports from countries *without* mandatory carbon restrictions may gain a price advantage over domestic goods. It is exactly this asymmetry that led the US Senate[3] to reject the Kyoto Protocol[4], an international agreement that did not require emission cuts from

[1] This chapter updates earlier research published as a working paper. For the original working paper, see Joost Pauwelyn, *U.S. Federal Climate Policy and Competitiveness Concerns: The Limits and Options of International Trade Law* (Durham: Nicholas Institute for Environmental Policy Solutions, Duke University, 2007).

[2] This chapter only addresses government intervention that restricts greenhouse gas emissions; not subsidies that promote alternative energy sources (although such subsidies raise questions of WTO consistency of their own). In terms of ranking these different policy instruments, *The Economist* put it bluntly: 'Governments can try to reduce emissions in three ways: subsidise alternatives, impose standards on products and processes, and price the greenhouse gases that cause the damage. The first is almost always a bad idea; the second should generally be avoided; the third is the way to go' (*What price carbon?* The Economist, 17 March 2007, 15).

[3] For a contextual background, see the Byrd-Hagel Resolution (S.RES. 98, 105th Congress, 1997), determining that 'the United States should not be a signatory to any protocol … which would … mandate new commitments to limit or reduce greenhouse gas emission for the Annex I Parties, unless the protocol … also mandates new specific scheduled commitments to limit or reduce greenhouse gas emissions for Developing Country Parties within the same compliance period…'. See also President George W. Bush, *President Bush's Speech on Global Climate Change*, 11 June 2001.

[4] Kyoto Protocol to the United Nations Framework Convention on Climate Change (Kyoto Protocol), Kyoto, 10 December 1997, in force 16 February 2005, 37 *International Legal Materials* (1998) 22. The Kyoto Protocol came into force on 16 February 2005, when Parties accounting for at least 55 per cent of total carbon dioxide emissions for 1990 had deposited their ratification (see Article 25.1 of the Protocol). Currently, the Kyoto Protocol includes 193 Parties (192 States and 1 regional economic integration organization), accounting for a total percentage of Annex I Parties emissions of 63.7%.

developing countries.[5] The competitiveness impact of climate change policy may play out both at home (on the domestic market) and abroad (on world markets). It can be particularly acute for energy-intensive manufacturers such as the iron and steel, aluminium, cement, glass, chemicals and pulp and paper industries.

This chapter examines the extent to which domestic climate policy could alleviate this competitiveness concern. More particularly, the chapter assesses the limits imposed by World Trade Organization ('WTO') agreements on possible competitiveness provisions in climate legislation. Such competitiveness provisions would essentially aim at levelling the playing field by imposing the same or similar costs on *imports*, as domestic climate policy imposes on *domestic* production. To level the playing field on world markets, *exports* could also be exempted from domestic climate restrictions.[6] As WTO Members are internationally bound by WTO law, any competitiveness provision that violates WTO agreements risks a challenge by trading partners before the WTO dispute settlement body. If competitiveness provisions were to be used as a sweetener to enable the adoption of domestic climate legislation, the WTO consistency of such provisions is, therefore, crucial.

Section 2 briefly examines the policy reasons for and against competitiveness provisions in climate legislation and discusses recent initiatives to this effect. *Section 3* explains how competitiveness provisions can take the form of trade measures, but that non-trade alternatives are also available. *Section 4* elaborates on the types of trade restrictions that would most likely *not* pass WTO muster (import bans, punitive tariffs, anti-dumping duties and countervailing (anti-subsidy) duties). Finally, *Sections 5 and 6* provide alternatives that the WTO would most likely accept. *First*, a carbon tax or emission allowance requirement on imports could be framed as WTO permissible 'border adjustment' of a domestic carbon tax or cap-and-trade system (Section 5). Crucially, if such 'border adjustment' does not discriminate imports as against domestic products (national treatment), and does not discriminate some imports as against others (most-favoured nation treatment), this type of competitiveness provision could pass WTO scrutiny

[5] The Kyoto Protocol required commitments (see article 3) from parties included in Annex I to the United Nations Framework Convention on Climate Change, adopted in 1992 (Annex I only includes developed countries). See also Nicholas Stern, *The Economics of Climate Change: The Stern Review* (Cambridge: Cambridge University Press, 2007), 478. For a study on carbon-intensiveness of certain developing countries, see Giles Atkinson, Kirk Hamilton, Giovanni Ruta, Dominique Van Der Mensbrugghe, 'Trade in "Virtual Carbon": Empirical Results and Implications for Policy', *Policy Research Working Paper 5194, Background paper to the 2010 World Development Report*, The World Bank, 2010.

[6] For *tax* rebates on export see note 74 below (explicitly permitted). For non-application to exports of domestic *regulations*, see note 94 below (not explicitly addressed in the SCM Agreement).

without any reference to the environmental exceptions in Article XX of the General Agreement on Tariffs and Trade ('GATT'). *Second*, even if 'border adjustment' would *not* be permitted for process-based measures such as a domestic carbon tax, regulation or cap-and-trade system imposed on producers, and/or such 'border adjustment' would be found to be discriminatory, the resulting GATT violation may still be justified by the environmental exceptions in GATT Article XX (Section 6). Such justification would then most likely centre on whether, under the introductory phrase of GATT Article XX, a carbon tax, emission allowance requirement or other regulation on imports is applied on a variable scale that takes account of local conditions in foreign countries, including their own efforts to fight global warming and the level of economic development in developing countries.

2. Policy reasons for and against competitiveness provisions in climate legislation

A. The benefits of a competitiveness provision

The immediate demand for competitiveness provisions is economic in nature. As a matter of arms-length competition, affected industries want to level the playing field by imposing the same costs on imports as climate legislation would impose on their own production. This economic *rationale* for competitiveness provisions – although it matters under the principle of 'national treatment' discussed in Section 5.D – is not likely to carry much weight in the WTO system for environmental exceptions (addressed in Section 6). There, our attention should focus on the non-economic, environmental reasons for competitiveness provisions. There are at least four such reasons:

- *Internalizing the social cost of carbon*: As the 2006 Stern Report points out, climate change 'is the greatest and widest-ranging market failure ever seen'.[7] In particular, carbon emissions cause harm or social costs that are not calculated into the actual price of goods. To internalise this social cost of carbon – assessed in the Stern Report at $85 per tonne of CO2[8] – government intervention is needed. However, science tells us that emissions cause their negative effect on our planet irrespective of where they arise. Hence, one government alone cannot resolve the matter. Climate change is, in other words, a collective action problem. International

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[7] Stern, note 5 above, Executive Summary. On price and market mechanism to internalise environmental costs of GHG emissions, see WTO-UNEP Report, *Trade and Climate Change: a Report by the United Nations Environment Programme and the World Trade Organization*, 2009, pp. 90-110; and Ludivine Tamiotti, Vesile Kulaçoğlu, 'National Climate Change Mitigation Measures and their Implications for the Multilateral Trading System', *Journal of World Trade* 43, No. 5, 2009.

[8] Stern, note 5 above, xvi.

cooperation is needed. Where such cooperation fails or is insufficient, as remains the case today especially after the Copenhagen Summit[9], a government can either resign itself to the problem or do something about it without the support of others. Unilateral action, albeit second or third best, could then include a competitiveness provision forcing at least all those goods that enter the domestic market of the legislating country to internalise the social cost of carbon.[10]

- *Carbon leakage or 'emission migration'*: In a scenario where not all countries cut emissions – that is, some countries are free-riders – certain countries may decide to cut their own emissions anyhow. Doing so may, however, shift market shares from (capped or 'cleaner') domestic sources to (uncapped and 'dirtier') imports. It may even lead some domestic companies to relocate to free-riding countries altogether. This would not only cost jobs and tax money in the legislating country, but could also increase carbon emissions elsewhere: Rather than reducing emissions under a new domestic climate regime, relocated supplies or firms may then actually emit more in countries with no carbon restrictions. A competitiveness provision would avoid market shifts to 'dirtier' imports to the extent that even relocated firms would, in any event, have to pay the cost of carbon when they re-export their products back to the home market.

- *Enabling wider and deeper emission cuts within the regulating country*: Competitiveness provisions are likely to reduce domestic business opposition against emission cuts. With a competitiveness provision in place, especially energy-intensive domestic industries may agree to be covered by the climate policy. Without such provision, in order to gain support for the adoption of climate policies, policy makers may end up having to exclude a number of industries altogether, impose lower overall cuts and/or be pressured into handing out emission allowances for free (instead of auctioning them off; a system that is generally regarded as more effective).[11]

- *Offer an incentive for other countries to join international efforts to cut emissions*: Competitiveness provisions would force imports to pay the social cost of carbon. This would offer an incentive to foreign companies to reduce their emissions. Foreign governments would

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[9] The 2009 United Nations Climate Change Conference, also known as the Copenhagen Summit, was held between 7 and 18 December 2009 and included the 15th Conference of the Parties (COP 15) to the United Nations Framework Convention on Climate Change, and the 5th Meeting of the Parties (MOP 5) to the Kyoto Protocol. The Copenhagen Summit resulted only in nonbinding commitments.

[10] For a full explanation of the economic case for a competitiveness provision, in particular, border tax adjustment on carbon-intensive imports, see Roland Ismer and Karsten Neuhoff, *Border Tax Adjustments: A feasible way to address nonparticipation in Emission Trading*, Cambridge: CMI Working Paper 36, January 2004, 4-8, available at http://ideas.repec.org/p/cam/camdae/0409.html, last visited on October 2011.

[11] The first phase of the European scheme, for example, covered only 46 per cent of the EU's total CO2 emissions and caps 'only' 13,000 installations. The waste, chemicals, aluminium and transport sectors are excluded from the scheme. See Javier de Cendra, 'Can Emissions Trading Schemes be Coupled with Border Tax Adjustments? An Analysis vis-à-vis WTO Law', 15 *Review of European Community & International Environmental Law*, 2006, 131, 133.

also be given an incentive to impose their own emission cuts, or to agree to emission cuts under an international agreement: Doing so may exclude them from import taxes or other regulations under a competitiveness provision when exporting to a country with carbon restrictions. Indeed, even if the enactment of a competitiveness provision never materializes, it must be kept in mind that the mere threat of its enactment may push certain countries, particularly those highly dependant on foreign trade, to cut emissions or otherwise engage in coordinated efforts to tackle climate change.[12]

B. The costs of a competitiveness provision

As noted by the 2006 Stern Review, unilateral trade barriers 'are clearly second best to implementing a similar carbon price across the global economy' through international agreements.[13] One must, therefore, remain acutely aware of the costs and risks of competitiveness provisions, five of which are summarised below.

- *Barriers to trade are inefficient*: Trade restrictions skew the optimal allocation of the world's resources and the principle of comparative advantage. They are also costly especially for domestic consumers and domestic industries that depend on imported inputs (such as an automobile industry using imported steel).
- *Competitiveness impact can be exaggerated or abused*: Even where trade barriers may be needed as second or third best solutions, competitiveness provisions risk being abused by

[12] Some reports indicated, for example, that China was planning to impose an export tax of 5 to 15 per cent on energy-intensive exports such as iron and steel, cement, aluminium and certain chemicals. *After the Stern Review: Reflections and Responses, Building an Effective International Response to Climate Change*, February 2007, 18, available at http://www.hm-treasury.gov.uk/media/B71/79/ paper_c.pdf. This strategy is also present in China's National Climate Change Programme, where it is stated that China would 'deepen institutional reform of foreign trade in controlling export of energy-intensive, pollution-intensive and resource-intensive products, so as to formulate an import and export structure favourable to promote a cleaner and optimal energy mix.' National Development and Reform Commission, *China's National Climate Change Programme* (2007), 31, available at http://www.ccchina.gov.cn/WebSite/CCChina/UpFile/File188.pdf. See also, National Development and Reform Commission, *China's Policies and Actions for Addressing Climate Change - The Progress Report* (2009), 75 available at http://www.ccchina.gov.cn/WebSite/CCChina/UpFile/File571.pdf ('The government has … revoked the tax rebate on the export of energy-, pollution- and resource-intensive products, and heightened the efforts to phase out of the backward production capacities in the power, iron and steel, building materials, … coal, and flat glass industries.'); Chinese Ministry of Finance and the State Administration of Taxation, Circular Caishui (2010) No. 57 of 22 June 2010, revoking export VAT refund for 406 items, covering amongst others steel products, nonferrous metal products, chemical products, and plastic, rubber and glass products. For major adjustments to China's export VAT refund rates of energy-intensive products (2004-2010), see Xin Xang, Ji Feng Li, Ya Xiong Zhang, 'Can export tax be genuine climate policy? An analysis on China's export tax and export VAT refund rebate policies', 8 *Idées pour le débat, IDDRI Sciences Po* (2010), Table A2, 15-17.

[13] Stern, note 5 above, 487.

importing-competing domestic industries for purely protectionist purposes unrelated to global warming. In this respect, the competitiveness impact of climate policy is often exaggerated. The Stern Review estimates that the cost of combating climate change now, would only be 1 per cent of global GDP, 'this is equivalent to price changes of an order that we are used to dealing with all the time, through, for example, changes in exchange rates'.[14] In the Report's opinion, even in energy intensive sectors, 'the impacts are not very high' and since the bulk of trade in many of these industries is limited to within regional blocs (such as the European Union ('EU')), '[a]pplication of greenhouse gas policies within these blocs is likely to reduce competitive impacts dramatically'.[15] Equally, the risk of relocation and carbon leakage can be exaggerated. Much will depend on how carbon-intensive products are and the extent to which domestic firms are able to pass on the cost of carbon into higher consumer prices: if pass on is not possible (due to, for example, high levels of openness to trade and low entry barriers), the market share of (uncapped) imports will increase and assuming imports are 'dirtier', carbon leakage is more likely. One OECD study, for example, showed that if the price of one tonne of CO2 were 15 Euros, the loss of production of the cement industry in the EU would have been 7.5 per cent in 2010 and that, as a result, production and emissions in the rest of the world would have increased. In other words, in this instance, there would be carbon leakage (for cement, passing on the full price of carbon into cement prices is difficult, given high levels of import competition and energy-intensity).[16] In contrast, the introduction of mandatory emission cuts in Europe did lead to a significant increase in the price of electricity (where passing on price increases is easier). Since there is no competition from outside the EU, European utilities simply reflected the price of emission allowances into higher electricity prices, affecting not only end-consumers but also EU industry.[17]

- *Future cooperation*: Competitiveness provisions, and the unilateral action that comes with them, may undermine the trust necessary for future international cooperation and agreement on emission reductions. This is the potential flip-side of one of the hoped for benefits of a competitiveness provision. On the one hand, such provision may incentivise free-riders to join an international scheme. On the other hand, it may distance them even further and make it more difficult to find consensus.

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[14] *After the Stern Review*, see note 12 above, 18.
[15] *Ibid.*
[16] Damien Demailly and Philippe Quirion, *The Competitiveness Impact of CO2 Emissions Reduction in the Cement Sector*, COM/ENV/EPOC/CTPA/CFA (2004) final, November 2005.
[17] See, for instance, Christian Egenhofer, Noriko Fujiwara and Kyriakos Gialoglou, *Business Consequences of the EU Emission Trading Scheme* (CEPS Report: 2005), 23.

- *Cost and complexity of implementation*: The administration of competitiveness provisions may be complicated. If, for example, a carbon tax or other restriction were imposed on imports, customs authorities would need to set up a system to collect information and decide on the carbon footprint of foreign countries and/or producers. If not only primary products (such as cement or steel) but also processed goods (such as cars or mobile phones) would be covered, and taxes or restrictions would target the actual carbon footprints of products (rather than country or product averages or benchmarks) more practical difficulties would arise. Similarly, if import restrictions would require justification under GATT Article XX (discussed in Section 6), a scheme would need to be set up that varies the tax or import restriction depending, for example, on climate legislation already in place in the country of origin of, say, the imported steel. These costs and practical difficulties must be weighed against the benefits that can be expected from a competitiveness provision.

- *Risk of a WTO challenge*: Any competitiveness provision with a serious trade impact is likely to trigger a WTO complaint.[18] Given the ambiguity of WTO law explained below, the WTO may either uphold or strike down the provision. Importantly, even if parts of a climate change measure were found to violate WTO law, the only formal remedy currently offered by the WTO dispute settlement system is that the WTO Member would then have to change its legislation as to the future (or suffer retaliation if it fails to do so within a reasonable period of time). No damages for past harm are due. Hence, a competitiveness provision could be included as part of a good faith effort to tackle climate change, pursuant to a good faith interpretation of relevant WTO rules. If the effort fails, and the WTO strikes down the provision or particular implementing details, the legislating country gets a second chance to correct its measure so as to bring it in line with WTO recommendations. It would get the chance to do so within a reasonable period of time, without any sanction or obligation to pay compensation.

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[18] See, for example, Patrick Low, Gabrielle Marceau, Julia Reinaud, 'The interface between the trade and climate change regimes: scoping the issues', *Staff Working Paper ERSD-2011-1*, WTO, Economic Research and Statistics Division, 2011; Gary Clyde Hufbauer, Jisun Kim, *The World Trade Organization and Climate Change: challenges and options*, Working Paper Series WP09-9, Washington: Peterson Institute of International Economics, 2009; Aaron Cosbey, *Border Carbon Adjustment: questions and answers (but more of the former)*, background paper, International Institute for Sustainable Development, 2009; Matthew Genasci, 'Border Tax Adjustments and Emissions Trading: the implications of international trade law for policy design', 33 *Carbon & Climate Law Review* 2008; Timothy E. Deal, 'WTO Rules and Procedures and their implication for the Kyoto Protocol', *United States Council for International Business*, 2008; and Ernst-Ulrich Petersmann, 'International trade law and international environmental law: environmental taxes and border tax adjustment in WTO law and EC law', *Environmental Law, the Economy and Sustainable Development: the United States, the European Union and the International Community*, Cambridge: Cambridge University Press, 2000, pp. 127-155.

C. Recent Initiatives Toward the Enactment of Competitiveness Provisions

The above list of costs and risks related to competitiveness provisions may well explain why they have so far not been implemented, at a general scale, by any country (although in defeated US climate change proposals they played a prominent role).[19] The first phase of the EU emissions trading scheme did include the possibility for EU member States to adapt their national allocation plan to take account of 'the existence of competition from countries or entities outside the Union'.[20] Yet, this criterion was not applied by a single member State in the first stage of EU emission cuts (ending in 2007).[21] The second phase of the EU scheme (2008-2012) also foresaw that for '[e]nergy-intensive industries which are determined to be exposed to a significant risk of carbon leakage … an effective carbon equalisation system could be introduced with a view to putting installations from the Community which are at significant risk of carbon leakage and those from third countries on a comparable footing'.[22] Yet, no such 'carbon equalization system'

[19] See, for example, Larry Parker, John Blodgett, Brent D. Yacobucci, 'U.S. Global Climate Change Policy: Evolving Views on Cost, Competitiveness, and Comprehensiveness', *CRS Report for Congress*, RL30024, Congressional Research Service, 24 February 2011; Larry Parker, Jeanne J. Grimmet, 'Climate Change: EU and Proposed U.S. Approaches to Carbon Leakage and WTO Implications', *CRS Report for Congress*, R40914, Congressional Research Service, 12 April 2010; and Trevor Houser, Rob Bradley, Britt Childs, Jacob Werksman, Robert Heilmayr, Leveling the Carbon Playing Field: International Competition and US Climate Policy Design (Washington: Peterson Institute for International Economics, World Resources Institute, 2008), 10-12. See also, Julia Reinaud, *Issues Behind Competitiveness and Carbon Leakage: Focus on Heavy Industry* (Paris: International Energy Agency - IEA Information Paper, 2008); *International Trade and Climate Change: Economic, Legal and Institutional Perspective*, Washington: The World Bank, 2008, chapter 2: Climate Change Policies and International Trade: challenges and opportunities, p. 19-43; Ben Lockwood, John Whalley, 'Carbon motivated border tax adjustments: old wine in green bottles?', *The World Economy*, 2010; John Stephenson, Simon Upton, *Competitiveness, Leakage, and Border Adjustment: climate policy distractions?*, OECD, SG/SD/RT(2009)3, 2009; Mark Kenber, Oliver Haugen, Madeleine Cobb, 'The Effects of EU Climate Legislation on Business Competitiveness: a Survey and Analysis', *Climate & Energy Paper Series 09*, The Climate Group, Washington: The German Marshall Fund of the United States, 2009; Gilbert E. Metcalf, David Weisbach, 'The Design of a Carbon Tax', 33 *Harvard Environmental Law Review* 2009; and Victoria Alexeeva-Talebi, Andreas Löschel, Tim Mennel, *Competitiveness in Unilateral Climate Policy: border tax adjustments or integrated emission trading?*, Mannheim: Centre for European Economic Research, 2008.

[20] Annex III of the Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC.

[21] de Cendra, note 11 above, 133. On proposals based on the EU ETS, see Javier de Cendra de Larragán, 'From the EU ETS to a Global Carbon Market: an analysis and suggestions for the way forward', *European Energy and Environmental Law Review*, 2010; and Daniel Gros, Christian Egenhofer, *Climate Change and Trade: Taxing carbon at the border?*, Brussels: Centre for European Policy Studies, 2010.

[22] Directive 2009/29/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community, Preambular paragraph 25 ("Such a system could apply requirements to importers that would be no less favourable than those applicable to installations within the Community, for example by requiring the surrender of allowances. Any action taken would need to be in conformity with the principles of the UNFCCC, in particular the principle of common but differentiated responsibilities and respective capabilities, taking into account the particular situation of least developed countries (LDCs). It would also

has been put in place to date (instead, energy-intensive industries based within the EU have received large amounts of free allowances). Australia's recently enacted Clean Energy Act (2011) imposes a carbon tax of 23 Australian dollars (as of July 2012), increasing over time, and planned to be replaced by a carbon trading scheme in 2015.[23] However, at this stage, it only imposes this tax on carbon emitted within Australia (and only on the 500 biggest polluters), not on the foreign carbon footprint of imported products (instead, as is the case in the EU, free carbon units are issued to certain energy-intensive, trade exposed producers). Australia's Productivity Commission, under a newly set up Jobs and Competitiveness Program, must keep an eye open on whether such border tax adjustment may be necessary in the future.

Similarly, prominent voices – such as Noble prize winner Joseph Stiglitz,[24] former French President Chirac and former Prime Minister de Villepin,[25] former EU Commissioner Verheugen,[26] French President Sarkozy,[27] and Michael Morris, CEO of American Electric Power[28] – have called for a carbon tax or trade measures against countries not cutting carbon emissions. Yet, in response, former EU Trade Commissioner Mandelson,[29] German Chancellor Merkel,[30] and former US Secretary of State Rice[31] have all been quick to reject the idea.

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need to be in conformity with the international obligations of the Community, including the obligations under the WTO agreement") and referred to in Article 10b(1)(b).

[23] See Clean Energy Act 2011, available at http://www.comlaw.gov.au/Details/C2011A00131/Html/Text#_Toc308513393.

[24] Joseph Stiglitz, *A New Agenda for Global Warming*, Economists' Voice, July 2006, available at http://www.bepress.com/cgi/viewcontent.cgi?article=1210&context=ev.

[25] *M. de Villepin Propose une Taxe sur le CO2 des Produits Importés*, Le Monde, 14 November 2006.

[26] *Letter by G. Verheugen to Commission President Barroso*, 21 November 2006.

[27] France says EU nations would back CO2 border tax, Bloomberg Businessweek, 26 March 2010, available at http://www.businessweek.com/ap/financialnews/D9EMBHBG1.htm ("I'm sure there would be a big majority to demand the end of Europe's naivety … Can we impose environmental standards on EU steel-makers and at the same time import from China steel that would be produced without environmental specification? … It would mean we accept production of all steel products shifting to China, or India or another country … In terms of unemployment, Europe would be penalized. We have to realize that ….")

[28] *Trade is the Key to Climate Change*, Michael Morris & Edwin Hill, Energy Daily, 20 February 2007, available at http://www.ujae.org/globalwarming/hill%20morris%20article%20in%20energy%20daily%20feb% 2020%2007.pdf.

[29] *Trade and Climate Change*, Speech by EU Trade Commissioner Peter Mandelson, Brussels, 18 December 2006, available at http://ec.europa.eu/commission_barroso/mandelson/speeches_articles/sppm136_en.htm ('There is one trade policy response to climate change about which I have serious doubts. That is the idea of a specific 'climate' tariff on countries that have not ratified Kyoto. This would be highly problematic under current WTO rules and almost impossible to implement in practice. I also suspect it would not be good politics').

[30] *Europe's Green Summit is Seeking to Bury the Carbon Past*, Financial Times, 8 March 2007, at 9 ('Ms. Merkel has dismissed – at this stage – a French idea that Europe should impose a 'Kyoto tax' on countries that undercut European producers at the expense of the environment').

[31] *US Pours Scorn on International Greenhouse Tax Proposal*, The Sidney Morning Herald, 20 November 2006 available at http://www.smh.com.au/news/world/us-pours-scorn-on-international-greenhouse-tax-

The question remains whether domestic pressures for adjustments on imports or other competitiveness provisions can be prevented once free allowances dry-up and/or the price of carbon reaches substantial levels (in November 2011, the EU market price for one tonne of carbon was below 10 Euros, a far cry from the Stern review's estimate of $85 per tonne[32]). Limited border adjustments have already been enacted in the EU, firstly, in the area of biofuels where both EU *and* imported biofuels are subject to emission reduction and land use requirements[33] (taking account of the entire life cycle of the fuel, including emissions outside the EU) and, secondly, in the aviation sector where, as of 1 January 2012, all planes, both EU *and* foreign, landing in or leaving from the EU will need to present or buy emission allowances.[34] A December 2011 judgement by the European Court of Justice confirmed the validity of this scheme, finding that it violates neither customary international law (rules on extra-territoriality) nor the Air Transport Agreement between the EC and the United States (the so-called Open Skies Agreement which, *inter alia*, exempts fuel load from any taxes, duties, fees and charges).[35] That said, both the United States and China, are vehemently opposed to the idea that their airline operators would have to pay the carbon price of entire flights whenever they take off or land in

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proposal/2006/11/19/1163871272165.html. Australian Prime Minister Howard called the idea of a carbon tax 'silly'.

[32] See note 5 above. The first phase of the EU scheme was not a success: In 2007, prices for allowances for the first phase collapsed with permits trading in March 2007 at about 1 euro or less per tonne, down from a high of over 30 euros, because more allowances were issued than were needed to cover companies' emissions in the first phase (*Energy Chief Wants Sharp Rise in Carbon Permit*, Financial Times, 8 March 2007, 2). As for phase two, it was expected that emissions would be reduced by 2.4% in 2010, as compared to expected emissions without the cap (Ben Jones, Michael Keen, John Norregaard, Jon Strand, 'Appendix 1.2: Climate Change: Economic Impact and Policy Responses', *Chapter 1: Global Prospects and Policies, World Economic Outlook* (Washington: International Monetary Fund), 64). Even in Europe, therefore, genuine internalisation of the social cost of carbon is still at an early stage. For an overview of the carbon market, see Alexandre Kossoy, Philippe Ambrosi, *State and Trends of the Carbon Market*, Washington: Carbon Finance, The World Bank, 2010.

[33] Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, Article 17.1 ("Irrespective of whether the raw materials were cultivated inside or outside the territory of the Community, energy from biofuels and bioliquids shall be taken into account for the purposes referred to in points (a), (b) and (c) only if they fulfil the sustainability criteria set out in paragraphs 2 to 6").

[34] See Lorand Bartels, The Inclusion of Aviation in the EU ETS, WTO Law Considerations, November 2011, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1959981.

[35] *Air Transport Association of America et al. v. Secretary of State for Energy and Climate Change*, Case C-366/10, 21 December 2011, finding, for example at para. 127: «It is only if the operator of such an aircraft has chosen to operate a commercial air route arriving at or departing from an aerodrome situated in the territory of a Member State that the operator, because its aircraft is in the territory of that Member State, will be subject to the allowance trading scheme".

the EU (and this including parts flown *outside* EU territory). In both countries initiatives are under way that would prohibit operators from paying the applicable fees.[36]

Within the United States, the state of California has enacted climate change legislation, including a Low Carbon Fuel Standard (LCFS) Program.[37] California's LCFS applies to transportation fuels sourced within California and those sourced outside California (be it in another US state or imported from a foreign country). The standard relates to the total amount of carbon emitted during the entire life cycle of the fuel (including its extraction, refinement and production process as well as transportation to California). Fuel providers are required to calculate the carbon intensity of each fuel component to determine their score. If this score is below a statewide average carbon intensity level (which decreases over time), the provider gets credits; if the score is above that average, credits must be purchased. Interestingly, however, a US federal district judge recently issued a preliminary injunction against the LCFS finding that it violates the Dormant Commerce Clause in the US constitution by discriminating out-of-state fuels as compared to California fuels.[38] The EU is currently considering a similar measure, to be enacted pursuant to Directive 2009/30/EC on fuel quality. It would also allocate carbon intensity scores and default values to transportation fuels, based on emissions during the entire life cycle of the fuel. As a result, oil from tar sands in Canada, for example, whose extraction generates far more GHG emissions than conventional oil would have a much harder time meeting EU fuel standards.[39]

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[36] See *China Bans Airlines from Complying with EU ETS*, Flightglobal, 6 February 2011, available at http://www.flightglobal.com/news/articles/china-bans-airlines-from-complying-with-eu-ets-367796/.
[37] Information available at http://www.arb.ca.gov/fuels/lcfs/lcfs.htm, in particular, the Low Carbon Fuel Standard Regulation of April 2010. Cal. Code Regs. tit. 17, §§95480-95490.
[38] *Rocky Mountain Farmers Union et al. v. James N. Goldstene, Executive Officer of the California Air Resources Board*, Order on Summary Adjudication Motion, CASE NO. CV-F-09-2234 LJO DLB, US District Court for the Eastern District of California (Judge O'Neill), 29 December 2011 (concluding that the LCFS "discriminates against out-of state corn-derived ethanol while favoring in-state corn ethanol and impermissibly regulates extraterritorial conduct. In addition, Defendants have failed to establish that there are no alternative methods to advance its goals of reducing GHG emissions to combat global warming").
[39] See EU Commission Consultation Paper under Article 7(a) of Directive 2009/30/EC, available at http://ec.europa.eu/environment/air/transport/fuel.htm.

3. Policy options to address competitiveness concerns

A. Competitiveness provisions other than trade measures

The focus of this chapter is trade measures, such as a carbon tax or other border restriction on carbon-intensive imports. Competitiveness concerns can, however, also be addressed by policies other than trade instruments. Below are six such alternatives.

- *Flexibility mechanisms*: such as emissions trading, making abatement less costly by letting companies who can abate at the lowest cost do so, and sell their extra reductions to other companies whose abatement costs are higher (the latter companies can then 'buy off' their reduction limits); additional flexibility can be offered where the legislation would permit the handing out of carbon credits to domestic firms for their carbon abating investments in developing countries, similar to the existing Clean Development Mechanism under the Kyoto Protocol.[40] Similar carbon credits could be provided for so-called carbon sinks such as forestry or agricultural projects or activities which reduce or transform carbon emissions.

- *Grandfather current emission levels - free allowances*: that is, hand out free permits to emitting industries up to current emission levels, thereby not imposing any immediate emission cuts and only requiring companies to buy allowances if they increase their emissions; if companies lower their emissions, they can sell the permits that they received for 'free' in the market. Such grandfathering of current emission levels would, however, have the drawback of rewarding the biggest emitters, i.e., those domestic companies that have so far not done anything to cut their emissions. It would also make it more difficult for new companies to enter the market (thereby potentially stifling competition). Solutions to this are to hand out free allowances based on emission averages or best available technologies (so that the most polluting firms get fewer allowances) and to reserve a number of free allowances for new entrants.

[40] Lessons should then, however, be learned from the current Kyoto mechanism which covers not only CO2 but also certain other gases such as HFC23, a heat-trapping gas 11,700 times stronger than CO2. Under Kyoto's Clean Development Mechanism, a reduction by, for example, Chinese chemical companies in HFC23 emissions can be bought by, for example, a European electricity company that cannot meet its carbon targets. However, to reduce HFC23 emissions is extremely cheap compared to the price of a CO2 emission credit. Some accounts speak of 0.5 euros/t of HFC23 in return of 8 euros/t of carbon. Put differently, Europe can continue to emit, that is, for example, to expand its electricity sector, by paying a subsidy to China. See Jean-Pierre Hauet, *Vers une Taxe Compensatoire sur le Carbone Importé*, Power Point Presentation, 15, available at http://www.kbintelligence.com/fileadmin/pdf/TCCI_JPHdec06.pdf, last visited on October 2011.

- *Industry carve-outs*: to alleviate competitiveness concerns, the legislation can exclude certain energy-intensive industries from any emission reductions[41]; the country's overall carbon target could then still be met by reductions elsewhere.

- *Cross-subsidisation*: revenues raised by a carbon tax or auctioning emission permits could be used to lower other costs on domestic firms such as taxes on labour or capital, or technology development and application costs.

- *Safety-valves*: a climate policy could impose a maximum price or safety-valve above which emission permits cannot be traded; this safety-valve could also be coupled to periodic review of whether trading partners address climate change appropriately; if trading partners fail to act, in order to alleviate resulting competitiveness concerns, the safety-valve or ceiling price of domestic emission permits could then be lowered.[42]

- *Promise extra emission cuts in case other countries join*: Another way to attract participation from other countries in the reduction of greenhouse gas emissions is to promise additional cuts in case other countries impose emission cuts of their own; this carrot (rather than stick) approach is exactly what Europe decided to do at the March 2007 Summit: the EU-27 made a pre-commitment of a 20 per cent cut by 2020 compared with 1990 levels, with a promise to move to 30 per cent if other industrialised countries follow suit.[43]

B. Trade restrictions in respect of 'locally-emitted' carbon versus *'foreign-emitted' carbon*

Notwithstanding the above alternative, or complementary, policies to address competitiveness concerns, this chapter focuses on trade instruments. Trade policy can be used in the fight against climate change not only as a stick but also as a carrot (for example, by linking trade benefits to a country's efforts in fighting climate change[44]). The concern of this chapter is, however: When and how can a country use its trade policy as a stick against high-carbon imports? There are

[41] See note 11 above.

[42] See, for example in the United States, the Bingaman Bill at Section 1521 and the Udall-Petri Bill at Section 5.

[43] *EU Seizes Leadership of Climate Fight*, Financial Times, 10-11 March 2007, 2.

[44] Examples of how trade can be used as a carrot to convince other countries to make emission cuts or join an international agreement on climate change are: (1) the reported deal between the EU and Russia whereby the EU agreed to Russia's accession to the WTO in exchange for Russia ratifying the Kyoto Protocol (see, for example, Jeffrey Frankel, 'Climate Change and Trade, Links between the Kyoto Protocol and WTO', 47 *Environment* (2005) 8, 12; (2) European tariff preferences for goods coming from developing countries who have ratified and implemented, among other agreements, the Kyoto Protocol (Council Regulation (EC) No 980/2005 of 27 June 2005 applying a scheme of generalized tariff preferences, Annex III, Part B, item 23, available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2005R0980:20080301:EN:PDF, last visited on October 2011).

generally two types of trade measures that could be used against imports in the combat against climate change:

(1) *Import restrictions in respect of 'locally-emitted' carbon*: that is, trade restrictions such as taxes, energy efficiency standards or other emission regulations in respect of the carbon emitted by imported products *while they are used or consumed on the territory of the importing country*; a good example is the recently adopted European rule requiring that cars sold in Europe will have to cut emissions to 130g/km by 2012, or the rule that biofuels will have to make up 10 per cent of the fuel mix[45]; emission standards for fuels (domestic or imported) combusted in the regulating country is another example.

(2) *Import restrictions in respect of 'foreign-emitted' carbon*: that is, trade restrictions such as tariffs, taxes or emission regulations in respect of carbon emitted by imported products *in their country (or countries) of production and/or during international transportation outside the importing country*; good examples are Joseph Stiglitz's proposal for Japan, Europe and other Kyoto parties to impose anti-dumping or anti-subsidy duties on imports from the United States, the French proposal to impose a carbon tax on imports from all countries that refuse to cooperate in a new post-Kyoto regime as of 2012, or the suggestion by Michael Morris that emission credits accompany exports from major emitting nations that have not joined a post-Kyoto global cap-and-trade framework or otherwise capped their emissions.[46] The EU's biofuels directive and California's low carbon fuel standard, discussed in the previous section, also include foreign-emitted carbon into their calculations.

Restrictions in respect of locally-emitted carbon simply bring imported products into the fold of domestic regulations on climate change, targeting the carbon they emit *within* the importing country. For as long as such restrictions do not discriminate imports as against domestic products, nor between imports of different origins[47], these restrictions are generally accepted

[45] *Europe's Green Summit*, see note 30 above. But for an economic ranking of possible government interventions see note 2 above.
[46] Note also the alternative of export duties on carbon-intensive exports from, say, China. That is apparently what China introduced to alleviate US and, in particular, European competitiveness concerns, see notes 12 above and 150 below.
[47] Discussed below in Sections 5.D and E. Even if there is discrimination, it can still be justified under the environmental exception of GATT Article XX, discussed in Section 6. For a short comparison between different policies, see Carolyn Fisher, Alan K. Fox, 'Comparing Policies to Combat Emissions Leakage:

under WTO rules. At the same time, since restrictions on locally-emitted carbon only aim at meeting *internal* (domestic/national) targets of emission reductions, such restrictions only very partially address the competitiveness concerns of climate policy. They make, for example, Brazilian cars or Chinese refrigerators subject to carbon-restricting regulations of the importing country on energy efficiency; they do not at all address the competitive edge that steel from China or cement from Brazil may have because of the absence of emission cuts in China or Brazil. Import restrictions in respect of foreign-emitted carbon do address those concerns. Yet, because they have an extraterritorial element – they concern carbon emitted outside the territory of the importing country – such restrictions are far more controversial.

These offshore-carbon restrictions are the focus of the remainder of this chapter. The next section (*Section 4*) sums up import restrictions that would most likely violate WTO rules (import bans; punitive tariffs; anti-dumping duties and countervailing (anti-subsidy) duties). *Section 5* provides alternatives that stand a better chance of surviving WTO scrutiny, namely: adjustment at the border of a domestic carbon tax, cap-and-trade system or other carbon regulation. *Section 6*, finally, explains how even import restrictions that violate basic WTO rules can, nonetheless, still be justified under the environmental exceptions of GATT Article XX. Note, however, that once border adjustment of domestic climate legislation is permitted and is applied on a non-discriminatory basis, there would not even be a need to go to the exceptions of GATT Article XX.

4. Import Restrictions in Respect of 'Foreign-Emitted' Carbon that Would Most Likely Violate WTO Rules

Although in economic terms trade restrictions to address offshore-carbon may be little or no different depending on the form they take, in legal terms, the choice of instrument is crucial. Depending on whether a country were to impose a tariff on imports or rather frames the adjustment in the form of a tax, anti-dumping duty, technical regulation or carbon label, the WTO consistency of competitiveness provisions can vary dramatically. This Section sums up import restrictions in respect of foreign-emitted carbon that would make no, or very little, chance of survival if they were challenged before the WTO (subject to the exceptions discussed in *Section 6* below).

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border tax adjustments versus rebates', Discussion Paper, Washington: Resources for the Future (RFF DP 09-02), 2009.

A. An import ban or punitive tariffs on imports from free-riding countries

One can only assume that a complete ban on imports from countries that do not have carbon restrictions in place is not on the table. If such a ban, or any other quantitative restriction on imports (say, China can only export 100,000 tonnes of steel made with coal into the United States), were nonetheless imposed, it would violate the prohibition in Article XI of the GATT which imposes the general elimination of all quantitative restrictions.[48] Unless such violation could be justified under the environmental exceptions in GATT Article XX (see *Section 6* below), any such scheme would violate WTO rules.

Besides a ban, the most obvious way to sanction imports from free-riding countries is to make them subject to additional or punitive import tariffs. This not only risks a violation of the most-favoured-nation (MFN) principle discussed in Section 5.E (in that imports from some countries, say, China would be discriminated as against imports from other countries who do have emission cuts in place, say, Europe). It also risks a violation of maximum tariff levels WTO members committed to. Under Article II of the GATT, each WTO Member bound itself to a certain maximum ceiling of tariffs, on a product by product basis, in exchange for similar tariff reductions by its trading partners. Most of the tariffs that, for example, the United States currently applies are at, or very close to, that maximum ceiling. Especially developed country WTO Members have no or little leeway to add tariffs on imports for reasons related to climate change (developing countries, in contrast, often have a wider scope of manoeuvring in that their currently applied rates tend to be much lower than their maximum bound ceilings).[49] Unless such violation could be justified under the environmental exceptions in GATT Article XX (see *Section 6* below), any punitive 'carbon tariff' would violate WTO rules.

B. Anti-dumping duties against 'environmental dumping'

Rather than outright punitive tariffs, a more subtle alternative could be to frame the additional customs duties on imports from countries that do not have carbon restrictions in place, as duties

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[48] For the line between GATT Article XI border measures and GATT Article III internal measures, see below Section 5.B.

[49] Tariff commitments can be renegotiated pursuant to GATT Article XXVIII but this is subject to consent by other WTO Members or, in the absence thereof, a reciprocal withdrawal of tariff concessions by other WTO Members. Moreover, even with a higher tariff ceiling for, say, steel imports, the question of most-favoured-nation violation remains.

to offset dumping, more specifically, ‘environmental dumping’. In his proposal for a carbon tax, French Prime Minister de Villepin explicitly referred to ‘environmental dumping’ as a justification for the tax.[50] On this view, since the price of imports from, for example, China, India or Brazil would not include the social cost of the carbon emitted during the production process of the imports – given that none of these countries impose binding carbon cuts – the imports are ‘dumped’ on the domestic market. According to this argument, an importing country that adopts binding carbon cuts should then have the right to impose anti-dumping duties, that is, extra tariffs to offset the dumping up to the margin of dumping that would include the amount of the social cost of the carbon. Doing so would correct the failure of, for example, the Indian government which did not force its producers to internalise the full cost of carbon-intensive products.

Although anti-dumping duties take the form of tariffs, they are explicitly permitted under WTO rules even if the resulting tariff exceeds a country's maximum ceiling discussed earlier.[51] However, this right to impose anti-dumping duties is strictly limited. The basic question is: When is an import considered to be ‘dumped’ on the domestic market? What is the benchmark or ‘normal value’ against which we must compare the price of the import? The answer is simple: The benchmark is *not* domestic prices which would fully incorporate the cost of carbon. Rather, the benchmark is ‘normal prices’ in China, Brazil or India, that is, the market of the exporting country. In other words, the WTO defines dumping as sales of, for example, exported Indian steel in the United States at a price below that asked for the same steel *in India*.[52] Hence, the United States can only impose anti-dumping duties on products from India when export prices are below *Indian* prices. In addition, the price comparison thus made looks at sales ‘made at the same level of trade, normally at the ex-factory level’[53] and must make abstraction of ‘differences’ between local sales (in India) and export sales (in the United States) ‘which affect price comparability, including differences in conditions and terms of sale, taxation … and any other differences which are also demonstrated to affect price comparability’. As result, in our hypothetical (which assumes that the United States does, but India does not, impose a cost on carbon), a calculation of dumping would *not* include the cost of carbon, neither on the ‘export price’ side (price of the Indian steel as it reaches the United States *before* paying any carbon tax)

[50] See note 25 above.
[51] See GATT Article II:2(b).
[52] Pursuant to Article 2.1 of the AD Agreement, ‘a product is to be considered as being dumped, i.e. introduced into the commerce of another country at less than its normal value, if the export price of the product exported from one country to another is less than the comparable price, in the ordinary course of trade, for the like product when destined for consumption in the exporting country.’
[53] Article 2.4 of the WTO’s Anti-Dumping (AD) Agreement.

nor on the 'normal value' side (price of Indian steel sold in India where no cost on carbon is imposed). Consequently, differences in the price of carbon in India as opposed to the United States would not add to a finding of 'dumping'. In sum, for dumping purposes, export prices are not compared to carbon-restricted domestic prices or to an ideal market price that internalises the social cost of carbon. They are compared to normal prices in the country of export itself.

The WTO's Anti-Dumping (AD) Agreement does, however, foresee situations where home country (Indian) prices may be disregarded as a basis for the determination of 'normal value'. This includes situations 'when, because of the *particular market situation* … such sales [on the Indian market] do not permit a proper comparison'.[54] A WTO Member could, therefore, consider that the non-application of binding carbon restrictions (in India) constitutes a 'particular market situation' (a market failure?) that does not permit a 'proper comparison'.[55] Yet, even assuming that the investigating authority could disregard Indian prices on this or other grounds referred to in AD Article 2.2, even in those cases 'normal value' must still be determined with reference to the regulatory context of the exporting country (India), that is, either with reference to the export price of *Indian steel* to an 'appropriate third country' (say, Brazil) or a so-called 'constructed' normal value based on 'the cost of production *in the country of origin* [India] plus a reasonable amount for administrative, selling and general costs and for profits.'[56] In other words, the export price from India to an 'appropriate third country' (Brazil) would also not internalise the social cost of carbon. It would also seem difficult to internalise such cost through the constructed normal value, since AD Article 2.2 refers to cost of production 'in the country of origin' (India) although AD Article 2.2.1.1 adds that 'costs shall normally be calculated on the basis of records kept by the exporter or producer under investigation, provided that such records … *reasonably reflect the costs associated with the production and sale of the product under consideration*.' One could argue that not factoring in the cost of carbon in a constructed normal value does not '*reasonably* reflect the costs associated with the production and sale of the product [steel] under consideration' and on that ground include within the constructed normal value the carbon cost associated with steel production in India even if such cost is not imposed by India itself. Doing so would increase 'normal value' as compared to 'export prices' and (assuming one does not also add the cost of carbon to export prices) make a finding of dumping more likely. It is, however,

[54] Article 2.2 of the AD Agreement.

[55] The expression 'particular market situation' is neither defined by the AD Agreement, nor has WTO jurisprudence clarified its meaning.

[56] AD Article 2.2. See Article 2.2.2 of the AD Agreement for the calculation of the amounts for 'administrative, selling and general cost and for profits'.

doubtful that a WTO panel would follow this interpretation as it would go beyond the regulatory context of the exporting country (by including a production cost not imposed in India).

Another scenario where local prices may be disregarded in the determination of 'normal value' is defined by the Ad Note to GATT Article VI:1. This provision clarifies that 'special difficulties may exist' in determining 'normal value' in the case of imports from a country 'which has a complete or substantially complete monopoly of its trade and where all domestic prices are fixed by the State', often referred to as non-market economies. Section 15(a) of the Protocol on the Accession of China has similar language when it states that '[i]n determining price comparability under Article VI of the GATT 1994 and the Anti-Dumping Agreement, the importing WTO Member shall use either Chinese prices or costs for the industry under investigation or *a methodology that is not based on a strict comparison with domestic prices or costs in China*…'.[57] In this scenario, importing countries may disregard 'a strict comparison with' Chinese 'prices or costs' and could decide to determine 'normal value' based on an analogue, third country (say, Australia). Regardless of whether such normal value is then calculated based on the *price* in the ordinary course of trade in the analogue country or whether it is a constructed normal value based on *costs* in the analogue country, if such analogue country imposes carbon restrictions, particularly in the form of producer taxes (rather than product taxes),[58] one could consider that such costs would be incorporated in (and thereby increase) 'normal value'. Assuming that export prices (from, say, China to the United States) would not include this carbon cost, finding dumping in respect of imports from non-market economy producers would then be facilitated. In that case, however, the issue for the (US) investigating authority would be to justify the selection of an analogue country (such as Australia) which, unlike the investigated country, does incorporate the cost of carbon.

[57] Note that Section 15(d) of the Protocol on the Accession of China establishes conditions upon which Section 15, or part thereof, would be terminated.

[58] If carbon restrictions are imposed in the form of a carbon tax on products, the carbon cost would not normally be reflected in the 'normal value' at the ex-factory level (or, in case of a constructed normal value, the carbon tax would not normally be part of the production cost in the analogue country). As such, the amount corresponding to a carbon tax applicable to products (and not producers) would then be adjusted (i.e. not be added to normal value) due to (tax) differences affecting price comparability as referred to in AD Article 24. Note that when it comes to 'border adjustment' under GATT Article III, the situation is the reverse: imposing the cost of carbon also on imports is easier when the domestic tax or regulation is imposed on products (as opposed to producers), see Section 5.A and B below.

In sum, using anti-dumping as an instrument to level the carbon playing field is unlikely to pass WTO muster except perhaps in very limited circumstances such as those involving imports from non-market economies and acceptable analogue countries that do internalize the price of carbon.

C. Countervailing duties to offset the 'subsidy' of not imposing carbon restrictions

Another alternative that also takes the form of additional tariffs on imports would be to impose so-called countervailing duties to offset subsidisation of the imports in their country of origin. Joseph Stiglitz's proposal for a carbon duty is premised on this idea of 'unfair subsidies'. In his words, and applied to the absence of energy taxes and emission cuts in the United States as opposed to Europe:

> subsidy means that a firm does not pay the full costs of production. Not paying the cost of damage to the environment is a subsidy, just as not paying the full costs of workers would be … other countries should prohibit the importation of American goods produced using energy intensive technologies, or, at the very least, impose a high tax on them, to offset the subsidy that those goods currently are receiving.[59]

As with anti-dumping, the WTO explicitly permits the imposition of extra tariffs to offset a foreign subsidy, even if the resulting tariff exceeds a country's maximum ceiling discussed earlier. However, this right to impose countervailing duties is strictly limited. The basic question is: When is an import considered to be 'subsidised'? In our example, what is the benchmark against which the absence of emission cuts or a carbon tax in, for example, China – or, in Stiglitz's case, the United States – must be compared?

For government policy to qualify as a subsidy under WTO rules there must be a 'financial contribution' by the government (say, interest free loans) or other 'income or price support' which, in either case, confers a 'benefit'.[60] In our example, the problem is not that the Chinese government is paying Chinese producers or is otherwise transferring funds. Rather, the problem is that the government *fails to act*, that is, it fails to impose and collect a carbon tax or to otherwise force Chinese producers to internalise the full cost of carbon emitted in China.

[59] Above note 24 above, 2.

[60] Article 1.1 of the *Agreement on Subsidies and Countervailing Measures* ('SCM Agreement'). In this chapter, only the right to impose countervailing duties is examined. In response to subsidies which cause certain adverse effects, WTO Members can also file a direct complaint at the WTO against so-called actionable subsidies identified in Part III of the SCM Agreement.

One type of financial contribution recognised by the WTO that might, at first sight, cover this failure to act, is: 'government revenue that is *otherwise due* is foregone or not collected'.[61] However, the question under this provision is: What is the benchmark for what is 'otherwise due'? The WTO Appellate Body has interpreted this provision as requiring a comparison between the measure (or failure to act) in question, on the one hand, and a prevailing *domestic* standard, on the other hand. In other words, the benchmark of what is 'otherwise due' is the normal or standard policy within the country in question (say, China). It is not the policy of the European Union or some other internationally agreed intervention to cut emissions or to impose a carbon tax.[62] Hence, for as long as, for example, China does not have a general policy of restricting carbon emissions within China, for Chinese exports not to internalise the social cost of

[61] Article 1.1(a)(ii) of the SCM Agreement.

[62] Appellate Body Report on *US - FSC* (Appellate Body Report, *United States – Tax Treatment for "Foreign Sales Corporations"*, WT/DS108/AB/R, adopted 20 March 2000, DSR 2000:III, 1619), para. 90 (underlining added):

> "the basis of comparison must be the tax rules applied by the Member in question [e.g. China]. To accept the argument of the United States that the comparator in determining what is "otherwise due" should be something other than <u>the prevailing domestic standard</u> of the Member in question would be to imply that WTO obligations somehow compel Members to choose a particular kind of tax system; this is not so. A Member, in principle, has the sovereign authority to tax any particular categories of revenue it wishes. <u>It is also free *not* to tax any particular categories of revenues</u> … What is "otherwise due", therefore, depends on the rules of taxation that each Member, by its own choice, establishes for itself".

In a subsequent proceeding, the Appellate Body further explained that:

> "… a "financial contribution" does not arise simply because a government does not raise revenue which it could have raised. It is true that, from a *fiscal* perspective, where a government chooses not to tax certain income, no revenue is "due" on that income. However, although a government might, in a sense, be said to "forego" revenue in this situation, this alone gives no indication as to whether the revenue foregone was "otherwise due". In other words, the mere fact that revenues are not "due" from a fiscal perspective does not determine that the revenues are or are not "otherwise due" ….
>
> … the treaty phrase "otherwise due" implies a comparison with a "defined, normative benchmark". The purpose of this comparison is to distinguish between situations where revenue foregone *is* "otherwise due" and situations where such revenue is *not* "otherwise due". … Such a comparison enables panels and the Appellate Body to reach an objective conclusion, <u>on the basis of the rules of taxation established by a Member, by its own choice</u>, as to whether the contested measure involves the foregoing of revenue that would be due in some other situation or, in the words of the *SCM Agreement*, "otherwise due"."

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, adopted 29 January 2002, DSR 2002:I, 55, paras. 88-89 (underlining added).

carbon cannot normally be called a subsidy.[63] An alternative in this respect is to argue that not imposing the cost of carbon, especially where other countries do so, is a 'form of income or price support'[64] to domestic (Chinese) producers which compete with foreign producers that must pay this cost. No WTO jurisprudence exists, however, that clarifies this rather broad residual category of WTO 'subsidies' in the shape of 'any form of income or price support' (other than a 'financial contribution' by the government). However, even if 'income or price support' would be found, for there to be a 'subsidy' such support must also confer a 'benefit' (SCM Article 1.1(b)). Yet, 'benefit' in the WTO has been interpreted to mean a situation that is better than the prevailing market situation, that is, in normal circumstances with reference to in-country prices[65] (e.g., in our example, prices within China). If China would not impose a carbon price in the first place, the 'income or price support' offered to Chinese producers by not taxing carbon would not put these producers in a better situation as compared to the normal market situation in China since, in that market, no one must pay the cost of carbon.

In any event, even if the failure to impose a carbon tax or to otherwise force producers to internalise the cost of carbon were to qualify as a 'subsidy', under WTO rules countervailing duties to offset subsidies by foreign governments can only be levied in case the subsidy is *specific* to 'an enterprise or industry or group of enterprises or industries'.[66] Not imposing a carbon tax or other emission cuts is a country-wide policy and not likely to meet the specificity requirement. In addition, carbon emissions and other environmental considerations could be seen as 'objective criteria or conditions' governing the eligibility for, and the amount of, a subsidy, within the meaning of Article 2.1(b) of the SCM Agreement. In this case, specificity shall not exist, 'provided that the eligibility is automatic and that such criteria and conditions are strictly adhered to.'[67] If so, there is no right to impose countervailing duties.

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[63] *But* see China's programme for export taxes on carbon-intensive exports, notes 12 above and 150 below. Arguably, an export tax rebate could be seen as a financial contribution within the meaning of Article 1.1(a)(1)(ii) of the SCM Agreement.

[64] SCM Article 1.1(a)(2).

[65] In some situations, however, the Appellate Body has accepted the use of external, out-of-country benchmarks ('an investigating authority may reject in-country private prices if it reaches the conclusion that these are too distorted due to the predominant participation of the government as a supplier in the market, thus rendering the comparison required under Article 14(d) of the *SCM Agreement* circular', Appellate Body Report, *United States - Definitive Anti-Dumping and Countervailing Duties on Certain Products from China*, WT/DS379/AB/R, adopted 25 March 2011, para. 446).

[66] Article 1.2 and Article 2 of the SCM Agreement.

[67] Article 2.1(b) of the SCM Agreement. Footnote 2 of the SCM Agreement determines that '[o]bjective criteria or conditions, as used herein, mean criteria or conditions which are neutral, which do not favour certain enterprises over others, and which are economic in natural and horizontal in application, such as number of employees or size of enterprise.'

Although export subsidies are deemed to be specific[68], not imposing a carbon tax at all is not likely to be qualified as a subsidy contingent on export performance[69]: Even if goods are not exported (i.e. consumed within China), they would not pay a carbon tax. That said, *de facto* export contingency could be found 'when the subsidy [assuming that not internalizing the cost of carbon could be seen as a subsidy] is granted so as to provide an incentive to the recipient to export in a way that is not simply reflective of the conditions of supply and demand in the domestic and export markets undistorted by the granting of the subsidy'.[70] Hence, not imposing a carbon tax is most likely neither a specific subsidy nor an export subsidy.

In sum, even though in economic terms not internalizing the full cost of carbon could be seen as 'dumping' or a 'subsidy', in legal-WTO terms, the failure of a government to impose a carbon tax or to otherwise force producers to internalise the full price of carbon, does not normally give other WTO members the right to impose offsetting duties on imports.

5 Import Restrictions in Respect of 'Foreign-Emitted' Carbon that Stand a Better Chance to Survive WTO Scrutiny

Rather than imposing a ban, quantitative restriction or extra tariff on *imports only*, a better way to frame a competitiveness provision would be to portray the trade measure on imports as simply the import-equivalent of *domestic* climate policy. For WTO purposes, any measure that applies only to imports is suspect, as it can be presumed to be protectionist (it applies only to foreign goods; not to domestic products). That explains the outright prohibitions in GATT Article II (as discussed above, tariffs above a particular ceiling are prohibited) and GATT Article XI (quantitative restrictions on imports are generally prohibited). In contrast, a measure that applies to both imports *and* domestic products is fully accepted as long as it does not discriminate against imports (the obligation of 'national treatment' discussed in Section D) or against imports from particular countries (the obligation of 'most-favoured-nation treatment' discussed in Section E).

The main challenge is, however, to convince the WTO that a competitiveness provision is only the extension of domestic climate policy, applied on an equal footing to imports. Section A

[68] Article 2.3 the SCM Agreement.
[69] As required under Article 3.1 of the SCM Agreement for a subsidy to be a prohibited export subsidy.
[70] Appellate Body Report, *European Communities and Certain Member States - Measures Affecting Trade in Large Civil Aircraft*, WT/DS316/AB/R, adopted 1 June 2011, para. 1045.

addresses this challenge assuming that climate policy takes the form of a carbon tax or other price-based measure. Section B extends the analysis to carbon regulations (such as carbon intensity standards or labels). A particularly thorny question in this respect is whether a cap-and-trade scheme is best qualified as a charge or regulation (addressed in Section C).

A. 'Border tax adjustment' for imports based on a domestic carbon 'tax'

If a competitiveness provision were to take the form of a price-based measure such as a duty, charge or tax on carbon-intensive imports, equivalent to the tax or duty imposed on domestic products, the first question that would arise is whether this duty on imports is either (i) a *border* duty 'on importation' (prohibited under GATT Article II if it goes beyond scheduled tariff bindings) or (ii) an *internal* tax or charge (permitted under GATT Article III:2 for as long as it is not discriminatory). This distinction was recently clarified by the WTO Appellate Body in *China – Auto Parts*. Duties on imports are *border* duties (subject to GATT Article II) when they 'accrue … *by virtue of the event of importation*'.[71] Duties on imports are *internal* taxes or charges (subject to GATT Article III:2) when 'the obligation to pay them is triggered by an "internal" factor, something that takes place *within* the customs territory'.[72] In that case, the Appellate Body found that Chinese duties on auto parts were 'internal' charges (not customs duties) as they accrued and were triggered or set by an internal factor (not by virtue of the event of importation), namely their internal assembly within China (if this assembly included a sufficient number of local, Chinese car parts, the duty was lower). In the present case, the question would be whether the carbon tax or charge on, for example, imported steel accrues or is triggered by an internal factor, such as internal sale or offering for sale of the steel (in which case it would be an internal tax or charge) or whether it accrues by virtue of the event of importation (in which case it would be a border duty). To attract the more permissive GATT Article III, carbon taxes or charges on imports should, therefore, be designed in such a way that they are triggered not by importation as such, but by the sale, offering for sale, distribution or use of imported products once these products have cleared customs. Importantly, this internal trigger does not prevent a WTO member from actually *collecting* or *enforcing* the duty at the time or moment of importation (as long as the substantive trigger for the duty remains internal). With reference to the Ad Note to GATT Article III, the Appellate Body in *China – Auto Parts* confirmed that 'the moment at

[71] Appellate Body Report, *China - Measures Affecting Imports of Automobile Parts*, WT/DS339,340,342/AB/R, adopted 12 January 2009, para. 158 (emphasis added).
[72] Ibid., para. 161.

which a charge is *collected* or *paid* is not determinative of whether it is an ordinary customs duty or an internal charge'.[73]

Importantly, even if the carbon tax or duty on imported steel were seen as a *border* duty, that is, triggered 'by virtue of the event of importation' (rather than an *internal* duty triggered by an internal factor or activity) it could still be carved-out or permitted pursuant to GATT Article II:2(a). This provision explicitly allows WTO Members to impose

> on the importation of any product … a charge equivalent to an internal tax … in respect of the like domestic product or in respect of an article from which the imported product has been manufactured or produced in whole or in part.

Such border charge (on e.g. steel imports) equivalent to an internal (carbon) tax on domestic steel ('like domestic product') must then, however, not discriminate against imports (in line with GATT Article III:2, discussed below in Section D).

The right to thus impose a domestic tax also on imports -- be it in the form of an *internal* tax extended to imports or a *border* duty on imports referred to in GATT Article II:2(a)) -- is also referred to as 'border tax adjustment'. This raises the second core question: do WTO rules permit 'border tax adjustment' for something like carbon taxes? Under 'border tax adjustment', the flip-side of the right to impose a domestic tax also on imports is the right to rebate the same tax on domestic products that get exported (thereby levelling the playing field not only on the domestic market but also on the world market, assuming no carbon cost is imposed there). Under WTO rules, such rebates are not considered to be prohibited export subsidies.[74]

Indeed, not every internal tax can be 'adjusted' and also be imposed on imports: The tax must, as pointed out earlier, be one 'in respect of … product[s]' or 'article[s]' used to manufacture or produce products (GATT Article II:2(a)). As GATT Article III:2 puts it, it must be an 'internal tax or other internal charge of any kind … applied, directly or indirectly, to …products'.[75] Put

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[73] Ibid., para. 158.

[74] GATT Article VI:4 and *Ad Note* to GATT Article XVI. See also footnote 1 and paragraphs (g) and (h) of Annex I to the SCM Agreement. The *Working Party on Border Tax Adjustments* (below note 76, at para. 10) found that rules on rebates for exports and taxes on imports are equivalent: 'it was agreed that GATT provisions on tax adjustment applied the principle of destination identically to imports and exports'.

[75] GATT Article III:2. On the export side, rebates are permitted for 'duties or taxes borne by … product[s]' (see GATT Article VI:4, *Ad Note* to GATT Article XVI and footnote 1 to the SCM Agreement).

differently, generally speaking, US *product* taxes can be adjusted and applied to imports, not US *producer* taxes.[76] Adjustable product taxes are also referred to as 'indirect taxes' such as sales, value-added and excise taxes. We find it quite normal, for example, that when Chinese TVs or French cigarettes are sold in the United States they pay the same sales or excise tax as US made TVs or cigarettes. Such product or indirect taxes can be applied also to imports. In contrast, producer taxes or 'direct taxes' such as payroll or income taxes, social security charges or taxes on profits or interests cannot be adjusted or imposed on imported products. We find it quite normal, for example, that imports from Monaco or Lichtenstein are not subject to an import tax to make up for the fact that Monaco and Lichtenstein impose much lower income taxes than the United States does. Such producer or direct taxes cannot be applied to imports.

The reason behind this distinction between, on the one hand, adjustable product or indirect taxes and, on the other hand, non-adjustable producer or direct taxes is the so-called 'destination principle' according to which products themselves should only be taxed in the country of consumption (in other words: exports get a rebate; imports get taxed). On this view, if products are only taxed in their place of consumption, countries preserve the right to choose their own level of taxation *and* trade neutrality is maintained as all products in a given market compete on the same competitive terms (without either double taxation or advantages from a more favourable tax regime in their country of origin).[77] The distinction also finds some support in the economic theory that generally *product* taxes (say, a 10 per cent VAT or sales tax on an iPhone) are shifted forward into consumer prices (the tax simply gets added to my invoice for the Iphone), whereas *producer* taxes (say, a 30 per cent income tax on Apple) are generally not passed on into the price of a product. Thus, on this view, producer taxes, as they do not influence product prices, do not affect the competitiveness of products and there is, therefore, no need to make adjustments for imports so as to level the economic playing field. However, it is acknowledged today that even producer taxes are to a certain degree reflected in the price of a product (high taxes on Apple may, in the end, increase the price of an iPhone; this will depend, amongst other things, on the

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Paragraphs (g) and (h) of Annex I to the SCM Agreement refer more broadly to permissible rebates for indirect taxes 'in respect of the production and distribution of exported products'.

[76] *Report of the Working Party on Border Tax Adjustments*, L/3464, 20 November 1970, at para. 14 ('The Working Party concluded that there was convergence of views to the effect that taxes directly levied on products were eligible for tax adjustment … Furthermore, the Working Party concluded that there was convergence of views to the effect that certain taxes that were not directly levied on products were not eligible for tax adjustment').

[77] Paul Demaret and Raoul Stewardson, *Border Tax Adjustments under GATT and EC Law and General Implications for Environmental Taxes*, 29 JOURNAL OF WORLD TRADE (1994) 5, at 6.

elasticity of supply and demand of the particular product and the competition in the market place).[78]

So, assuming (for now) that the climate policy for domestic businesses takes the form of a carbon tax, would such domestic carbon tax be regarded as an adjustable product tax that can be imposed also on imports for carbon produced abroad? Or would the WTO classify it as a producer (or direct) tax which cannot be adjusted at the border for imports? In case the carbon tax is imposed *on products* at the time of, for example, distribution or sale within the regulating country (much like a VAT or sales tax), the answer is straightforward. In that scenario, there can be no doubt that the tax is 'applied, directly … to … products' (say, when buying one tonne of cement, a carbon tax of 20 Euros is added). As a result, the tax *can* be adjusted on imports (subject to national treatment discussed in Section D below).

Where the carbon tax or charge is imposed not directly on the product as such but on its producer, based, for example, on the carbon emissions measured at a production installation (for practical purposes it is easier to check carbon emissions at the production site), the situation is more complicated.[79] On the one hand, following the definitions of 'direct' versus 'indirect' taxes in the SCM Agreement, a carbon tax (even one imposed on *producers*) would seem to be classified as an 'indirect tax' and thus, in principle, be adjustable.[80] On the other hand, it remains unclear

[78] See Christian Pitschas, *GATT/WTO Rules for Border Tax Adjustment and the Proposed European Directive Introducing a Tax on Carbon Dioxide Emissions and Energy*, 24 GA. J. INT'L &COMP. L. (1994-1995) 479 at 485. Be that as it may, calculating how much of a producer or direct tax shifts forward into consumer prices is extremely difficult and any corresponding border adjustment is open to abuse. As one study concluded, '[w]hile a blanket prohibition [on adjustment for producer or direct taxes] may not reflect economic reality … it reduces the possibility of serious trade disputes arising due to arbitrary impositions … [hence] for practical reasons, there is no real prospect of the distinction being abandoned' (Demaret and Stewardson, above note 77 at 16).

[79] Given the discussion below it is, however, surprising how on the WTO website the following categorical statement could, until recently, be found: 'Under existing GATT rules and jurisprudence, "product" taxes and charges can be adjusted at the border, but "process" taxes and charges by and large cannot. For example, a domestic tax on fuel can be applied perfectly legitimately to imported fuel, but a tax on the energy consumed in producing a ton of steel cannot be applied to imported steel' (available until December 2006 at http://www.wto.org/english/tratop_e/envir_backgrnd_e/c3s3_e.htm).

[80] Footnote 58 of the SCM Agreement states: 'The term "direct taxes" shall mean taxes on wages, profits, interests, rents, royalties, and all other forms of income, and taxes on the ownership of real property'. In contrast, '[t]he term "indirect taxes" shall mean sales, excise, turnover, value added, franchise, stamp, transfer, inventory and equipment taxes, border taxes and all taxes other than direct taxes and import charges'. A carbon tax imposed on products is arguably a specific excise tax and thus explicitly covered as an adjustable indirect tax. A carbon tax imposed on producers does not fall under any of the types listed under 'direct taxes'; hence, even a carbon tax on producers would seem to be an 'indirect tax' as it is 'other than direct taxes'. The question remains, however, to what extent these definitions in the SCM Agreement

whether a tax on inputs (such as energy) which are *not* physically incorporated into the final product (such as a tax on carbon emitted in, say, China but not, of course, physically present in the steel imported into the United States) can be adjusted at the border. These so-called 'hidden taxes' (or *taxes occultes*) target not the physical features of the imported product itself, but rather the process or production method of the product abroad, that is, the fact that when producing, say, steel in China, carbon was emitted *in China*.

The 1970 *GATT Working Party Report on Border Tax Adjustments* left the question, of whether hidden or process taxes can be adjusted at the border, unanswered.[81] A 1987 GATT panel report in the *US – Superfund* dispute, however, did permit the United States to impose a domestic tax on certain chemicals also on imports that had used the same chemicals 'as materials in the manufacture or production' of these imports.[82] Importantly, the panel did not specify whether these chemicals still had to be physically present in the imported product. Even more to the point, the United States introduced a tax on ozone depleting chemicals and applied this tax also to imports of such chemicals or products containing or produced with such chemicals. No GATT or WTO decision was ever rendered on this tax, but like border adjustment for a carbon tax, this tax on ozone depleting chemicals is process-related; not related to the physical characteristics of the final imported product.[83]

The relevant question is, ultimately, how broadly the WTO Appellate Body would interpret the words 'internal taxes … applied … <u>indirectly</u>, to … <u>products</u>' in GATT Article III:2[84] and

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on border adjustment for exports can be used also for purposes of interpreting GATT provisions on border adjustment for imports. In support of import-export equivalence see above note 74.

[81] Above note 76 at para. 15: 'It was generally felt that while this area of taxation was unclear, its importance – as indicated by the scarcity of complaints reported in connection with adjustment of *taxes occultes* – was not such as to justify further examination'.

[82] Panel Report on *United States – Taxes on Petroleum and Certain Imported Substances*, GATT, BISD 34S/136 (June 17, 1987), at para. 2.5 and para. 5.2.4.

[83] See Frank Biermann and Rainer Brohm, *Implementing the Kyoto Protocol without the USA: The Strategic Role of Energy Tax Adjustments at the Border*, 4 CLIMATE POLICY (2005) 289, at 294. It is also interesting to recall that when the US House of Representatives passed an energy tax on all fuels based on the heat content (or Btu, British Thermal Unit) of the particular fuel, it included a provision for a border tax adjustment, which was then criticised by the EC as a GATT violation. See Steve Charnovitz, *Trade and Climate: Potential Conflicts and Synergies*, in BEYOND KYOTO: ADVANCING THE INTERNATIONAL EFFORT AGAINST CLIMATE CHANGE, 141 at 147.

[84] The corresponding provision in GATT Article II:2(a) refers to internal taxes 'in respect of an <u>article</u> from which the imported product has been <u>manufactured or produced</u>'. Such 'article' could be interpreted as including the energy (and resulting carbon) used to produce the product. However, the equally authentic French text refers to '*une merchandise qui a été <u>incorporée</u> dans l'article importé*' which some have interpreted as requiring that the input must be physically incorporated into the imported product. The (equally authentic) Spanish version, however, refers again more broadly to "*una mercancía que haya*

corresponding provisions in the SCM Agreement.[85] The very idea of a carbon tax (even where it is imposed on *producers*) is to internalise the social cost of carbon in the ultimate price of products so as to give an incentive to both producers and consumers to limit the use of carbon-intensive products and to shift to greener energy. From that perspective, a carbon tax is a tax applied at least 'indirectly' to products. As the very reason for the tax is to make carbon-intensive products more expensive, the tax does (or should) shift forward to consumers (depending, again, on factors such as market competition and elasticity of supply and demand) and therefore could be said to be adjustable at the border. The tax will, in other words, change the terms of competition, and to ensure trade neutrality the tax of the country of consumption should apply; hence, border tax adjustment could, in principle, be permitted. Put differently, under a carbon tax, the 'nexus' between the tax and the products concerned (say, steel or cement) appears to be tight enough so as to allow adjustment (this 'nexus' is, in any event, tighter than under many other process taxes such as social security and wage taxes).[86] Therefore, even if technically the carbon tax or charge were levied on producers based on emissions at the production site, rather than directly on products at the point of sale, such tax or charge could still be regarded as 'applied … indirectly … to … products'.

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servido, en todo o en parte, para <u>fabricar</u> el producto importado" without any referente to (physical) incorporation.

[85] The corresponding provision for border rebates upon exportation is even broader. Paragraph (g) of Annex I to the SCM Agreement permits border tax adjustment for exports more broadly for indirect taxes 'in respect of the <u>production</u> and <u>distribution</u> of exported products'. This could arguably cover process or production-related taxes such as a carbon tax on producers. Paragraph (h) of Annex I, in turn, explicitly permits border tax adjustment upon exportation for a certain type of indirect taxes (namely, prior-stage cumulative indirect taxes) even when such taxes are 'levied on inputs that are consumed in the production of the exported product' including not only 'inputs physically incorporated' but also '<u>energy, fuels and oil used in the production process</u>' (Footnote 61). Yet, specific environmental taxes such as a carbon tax are not normally 'cumulative' indirect taxes and would thus normally not be covered by paragraph (h); as a result, they would fall under the more general provision of paragraph (g). See J. Andrew Hoerner and Frank Muller, *Carbon Taxes for Climate Protection in a Competitive World*, A Paper Prepared for the Swiss Federal Office for Foreign Economic Affairs, June 1996, at 33-34.

[86] A WTO panel report (Panel Report, *Mexico – Tax Measures on Soft Drinks and Other Beverages*, WT/DS308/R, adopted 24 March 2006, as modified by Appellate Body Report WT/DS308/AB/R, DSR 2006:I, 43, paras. 8.42-8.45) elaborates on the required 'nexus' between the tax and the products it affects. The panel found that GATT Article III:2 'requires some connection, even if indirect, between the respective taxes or other internal charges, on the one hand, and the taxed product, on the other'. It found that a tax on soft drinks containing sweeteners other than cane sugar is a tax applied 'indirectly' to beet sugar, among other reasons, because 'the burden of the tax can be expected to fall, at least in part, on the products containing the sweetener, and thereby to fall on the sweetener'. Even a distribution tax on soft drinks containing certain sweeteners was found to be a tax applied 'indirectly' to beet sugar, although the panel admitted that, in that instance, 'the degree of connection between the tax and the relevant products is more remote'.

B. 'Border adjustment' for imports based on a domestic carbon 'regulation'

In the previous section we have assumed that both the domestic climate policy and the competitiveness provision on imports would take the form of a price-based measure such as a tax or other charge. If so, WTO rules on border tax adjustment permit imposition also on imports as long as (i) the tax or duty on imports can be construed as an *internal* measure (or border measure *equivalent* to an internal tax) and (ii) the tax or duty on domestic production is sufficiently related or applied to *products*. What now if a country's climate policy would take the form of a trade restrictive *regulation*? One could imagine, for example, that the United States imposes maximum carbon intensity standards (tons of carbon equivalent emitted per ton of product produced) for energy-intensive products sold on the US market regardless of origin. A less trade restrictive type of carbon regulation would, for example, be to label all energy-intensive products as 'harmful to our climate'.[87]

In this case, the line between generally prohibited quantitative restrictions (GATT Article XI) and generally permitted domestic regulation (GATT Article III:4) is set out in an *Ad Note* to GATT Article III. This provision explains that

> any law, regulation or requirement … which applies to an imported product <u>and</u> to the like domestic product and is collected or enforced in the case of the imported product at the time or point of importation, is nevertheless to be regarded as … a law, regulation or requirement … subject to the provisions of Article III.

In other words, even if US climate legislation were to restrict imports at the border, if it is applied also domestically in respect of US products, it should, in principle, fall under the more flexible GATT Article III (permitting regulations for as long as they are not discriminatory) rather than the more stringent GATT Article XI (generally prohibiting quantitative import restrictions).[88]

Yet, as is the case for taxes and permissible border tax adjustment, not all domestic regulations can be applied to imports at the border. The *Ad Note* limits border adjustable regulations to 'any law, regulation or requirement of the kind referred to in paragraph 1 [of Article III]'. GATT

[87] On carbon labelling, see Paul Breton, Gareth Edwards-Jones, Michael Friis Jensen, 'Carbon Labelling and Low-income Country Exports: a review of the development issues, 27 *Development Policy Review* 3, 2009, 243-267; and James MacGregor, *Carbon Concerns: how standards and labelling initiatives must not limit agricultural trade from developing countries*, Issue Brief No. 3, ICTSD-IPC Platform on Climate Change, Agriculture and Trade, 2010.

[88] Discussed earlier when referring to a complete ban or other quantitative restriction on imports from countries without emissions cuts in place, above note 48.

Article III:1, in turn, is limited to 'laws, regulations and requirements affecting the internal sale, offering for sale, purchase, transportation, distribution or use of products.'

As was the case for possible border tax adjustment in respect of carbon taxes, the first question is whether the carbon regulation 'affects' -- i.e., targets, regulates or addresses -- an *internal* activity or act such as sale or use of products once these products have been imported within the regulating country (rather than the act or event of importation as such).[89] Where the carbon regulation is a labelling requirement or carbon intensity standard affecting or addressing the internal *sale* of energy-intensive products once these products have cleared customs, there can be little doubt that the measure is an *internal* regulation (subject to GATT Article III:4) rather than a border measure (subject to GATT Article XI). Pursuant to the *Ad Note* to GATT Article III, the fact that this internal regulation would, as it applies to imports, be 'enforced at the time or point of importation' would not detract from this characterisation.

Assuming the measure is, indeed, an *internal* one, the second question is whether a carbon regulation which, after all, targets the process or production method of, say, imported steel – not the physical characteristics of the steel itself – can be classified as a regulation 'affecting … products'. Put differently, is border adjustment for regulations limited to 'product' measures or does it extend also to 'process' measures? Two unadopted GATT panel reports found that 'process' measures fall outside the scope of GATT Article III and must, instead, be presumed to be prohibited under GATT Article XI. These reports were issued – though never formally adopted by GATT parties – in the famous *Tuna – Dolphin* dispute where a US ban on certain tuna captured in a way that risks killing dolphin was found to violate GATT Article XI and not justified under the environmental exceptions in GATT Article XX (discussed below in Section VI).

The first *Tuna – Dolphin* panel explained the exclusion of 'process' measures – such as carbon regulations – from the scope of permissible border adjustment under GATT Article III as follows:

> under the national treatment principle of Article III, contracting parties may apply border tax adjustments with regard to those taxes that are borne by products, but not for domestic taxes not directly levied on products (such as corporate income taxes). Consequently, the Note Ad Article III covers only internal taxes that are borne by

[89] See the discussion above, text at footnote 71 ff. referring, *inter alia*, to the Appellate Body Report on *China – Auto Parts*.

> products. The Panel considered that it would be inconsistent to limit the application of this Note to taxes that are borne by products while permitting its application to regulations not applied to the product as such.[90]

Put differently, according to this panel, as is the case for taxes, regulations as well can only be adjusted at the border if they 'apply to the product as such'; not if they regulate the producer. As the US domestic restriction on tuna harvesting 'did not regulate tuna products as such … Nor did it prescribe fishing techniques that could have an effect on tuna as a product'[91], the GATT panel found that the regulation could *not* be adjusted at the border for imported tuna. Hence, the US tuna ban was not covered by GATT Article III, but instead fell under (and automatically violated) GATT Article XI.

Although the *Tuna – Dolphin* panels would almost certainly have decided against border adjustment for carbon regulations, the fact remains that these panels were never adopted and that WTO thinking on the issue of border adjustment has evolved, as discussed in Section A above. Indeed, if the argument is that there must be broad equivalence between border adjustment for taxes and border adjustment for regulations (as the first *Tuna – Dolphin* panel itself found), then many of the arguments discussed in Section A above in support of permitting border adjustment for carbon *taxes* also support border adjustment for carbon *regulations*. Ultimately, the question is, once more, how broadly the WTO Appellate Body would interpret the words 'regulations … affecting … products' in GATT Article III:1 and 4. As with border tax adjustment, some line must be drawn between purely producer regulations that cannot be adjusted at the border, and product-related regulations that can be adjusted at the border. However, this does not necessarily mean that all process regulations are by definition not adjustable. If they sufficiently 'affect' the 'product' they could be found to be subject to GATT Article III. From that perspective, the 'nexus' between a carbon label or intensity standard and the products affected by it (say, carbon-intensive steel or cement) could be found to be tight enough so as to permit a finding that the carbon regulation is one 'affecting … products' in the sense of GATT Article III:4 and, therefore, adjustable at the border.[92] A recent WTO panel addressing US 'dolphin-safe' labelling requirements for the sale of tuna (with reference to where and how this tuna was caught) did confirm that such process-based labelling requirements are 'labelling requirements as they apply

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[90] GATT Panel report on *United States – Restrictions on Imports of Tuna*, DS21/R, 3 September 1991, BISD 39S/155, at 5.13

[91] *Ibid.*, para. 5.10.

[92] For a panel report interpreting this 'nexus' relatively broadly, see *Mexico – Soft Drinks*, discussed above note 86.

to a product', *in casu*, tuna. That was sufficient for the label to be a technical regulation of tuna.[93] The same reasoning could apply to a carbon label or carbon intensity standard. Since such labels or standards apply to products (e.g. carbon-intensive steel or cement) they are 'requirements affecting [a product's] … internal sale' and can therefore be imposed on both domestic and imported products pursuant to GATT Article III:4. From this perspective, the reason or purpose of the regulation does not matter (i.e. whether it regulates something physically in the product or how the product was produced). What matters is whether the regulation applies to or 'affects' the internal sale of a 'product' (here, steel or cement sold in the regulating market; in *Tuna Label*, tuna and how tuna can be labelled for sale within the United States).[94]

Note, finally, that carbon regulations (as opposed to carbon taxes) could also fall under the WTO *Agreement on Technical Barriers to Trade* (TBT). This agreement applies to both technical regulations 'which lay down product characteristics', that is, features of the product itself, 'and their related <u>processes and production methods</u>'.[95] Although this might be read as including only process regulations that leave a trace in the end product itself (as the process and production method must be '<u>related to</u>' the product characteristics), the carbon footprint of a product could still be found to be a 'product characteristic' or 'related' process or production method. Nothing in the text of the definition of 'technical regulation' requires that product characteristics or their related process or production methods must be intrinsic or physically incorporated in the end product.[96] In any event, regulations that address 'terminology, symbols, packaging, marking or

[93] Panel Report, *United States - Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/R, circulated 15 September 2011 (on appeal at the time of writing), para. 7.78.

[94] Note, however, that for process regulations – as opposed to process taxes – we do not have the above explained flexibilities set out in the SCM Agreement (discussed in note 85 above). Indeed, the SCM Agreement only refers to (and explicitly permits) adjustment upon exportation (i.e. rebates) for *taxes* or *duties*, not for *regulations* (although it remains unclear whether non-application of regulation to exports could be seen as a 'financial contribution' or 'subsidy' in the first place). Therefore, the broad definition of 'indirect' taxes; the reference to taxes 'in respect of the production' of exported products; and the inclusion of certain energy taxes, do not broaden the adjustability of process *regulations*. Moreover, the mere fact that a regulation increases the price of a product cannot, in and of itself, be sufficient for the regulation to be adjustable at the border (if not, a higher minimum wage in the United States as opposed to China, which arguably increases some US product prices, might also become adjustable). To avoid such slippery slope a closer 'nexus' between the regulation and the product affected by it must be demonstrated. In the end, it may, therefore, be easier to adjust taxes at the border as compared to regulations, something that would not be illogical given the preference that trade law (and economics) holds for tariffs or price-based measures over regulations on the ground that the former are generally more transparent and efficient than the latter.

[95] *Agreement on Technical Barriers to Trade*, Annex I, paragraph 1.

[96] In *EC – Measures Affecting Asbestos and Asbestos-Containing Products* (Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, WT/DS135/AB/R, adopted 5 April 2001, DSR 2001:VII, 3243, para. 67), the Appellate Body clarified that 'the "characteristics" of a product include, in our view, any <u>objectively definable</u> "features", "qualities", "attributes", or other "distinguishing mark" of a product. Such "characteristics" might relate, *inter alia* , to

labelling requirements' would be covered by the *Agreement on Technical Barriers to Trade*, as such requirements are covered as soon as they apply to '<u>a product, process or production method</u>' without the 'related to' *caveat*.[97] In other words, a carbon label for energy-intensive products including imports would seem to fall under the *Agreement on Technical Barriers to Trade*.[98] It is more doubtful, however, whether, for example, a maximum carbon intensity standard would be so covered, as such standard is not limited to 'marking or labelling' but actually prohibits certain high-carbon products to be marketed in the first place. That said, the carbon intensity on which this prohibition would then be based (say, a ban on steel with a carbon footprint above a certain level) could still be said to relate to the 'product characteristics' of the steel (and/or its related process or production method) and, therefore, be classified as a technical regulation subject to the TBT Agreement.

Once covered by the *TBT Agreement* a carbon label or regulation on imports must be non-discriminatory (see Sections D and E) and 'not more trade-restrictive than necessary to fulfil a legitimate objective … *inter alia:* protection of the environment'.[99] The latter requirement will involve an analysis similar to that under GATT Article XX discussed in Section 6. Where 'relevant international standards exist' WTO Members must 'use them … as a basis for their technical regulations' (TBT Article 2.4). In case a country's technical regulation, adopted to protected the environment, 'is in accordance with relevant international standards' it shall be 'rebuttably presumed not to create an unnecessary obstacle to international trade'. That said, where a relevant international standard is 'ineffective or inappropriate' to fulfil a country's environmental objectives, TBT Article 2.4 allows WTO Members to deviate from the standard. It remains unclear which climate change standards could be regarded as 'international standards' for TBT purposes. One recent WTO panel defined an 'international standard' as a 'standard that is adopted by an international standardizing/standards organization and made available to the public'.[100]

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a product's composition, size, shape, colour, texture, hardness, tensile strength, flammability, conductivity, density, or viscosity'. However, it went on to state that 'product characteristics include, <u>not only features and qualities intrinsic to the product itself</u>, but also related "characteristics", such as the means of identification, the presentation and the appearance of a product'.

[97] *Ibid.*

[98] In support, see the Panel Report on *US – Tuna Label*, above note 93.

[99] *Agreement on Technical Barriers to Trade*, Article 2.2.

[100] Panel Report on *US – Tuna Label*, above note 93, para. 7.663. The Panel added that it must constitute a 'document, established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context' (paras. 7.666-672, 6.36-38) and be 'open on a non-

C. ‘Border adjustment’ for imports based on a domestic ‘cap-and-trade’ system

In many countries, climate change policy takes the form not of an outright carbon tax or a clear carbon regulation, but rather of a cap-and-trade regime. Political and other reasons may prevent policy makers from calling climate legislation a form of ‘tax’. Raising taxes is, for example, not particularly palatable for many US politicians. In a cap-and-trade regime, producers must normally hold emission credits or allowances up to the level of carbon they emit at their production installations. In the context of the debate above on permissible ‘border adjustment’, the question is whether such obligation to hold emission allowances can be qualified as an ‘internal tax or other internal charge of any kind’ (in the sense of GATT Article III:2, discussed in Section A above) or is rather part of ‘laws, regulations and requirements affecting [a product’s] … internal sale …” (in the sense of GATT Article III:4, discussed in Section B above).

The general definition of a tax is a compulsory contribution imposed by the government for which taxpayers receive nothing identifiable in return.[101] The need to hold a permit for emitting CO2 almost exclusively serves the interests of the wider community; companies subject to the obligation do not receive anything specific or identifiable in return (as compared to, for example, a highway fee, where in return for the fee a driver gets to use the highway). From this perspective, the cost of having to present an emission credit could qualify as a ‘tax’.[102] In contrast, the obligation to hold an emission allowance could also be qualified as a ‘regulation’. In a recent case before the European Court of Justice, for example, Advocate General Kokott rejected the notion that the obligation to buy emission allowances is a tax or charge and construed it rather as a special type of regulation.[103] The ECJ implicitly confirmed this view when holding that the requirement imposed on aircraft operators to buy emission allowances is not a tax or charge on fuel load (prohibited by Article 11 of the Open Skies Agreement): “in contrast to the defining feature of obligatory levies on the possession and consumption of fuel, there is no direct

discriminatory basis to the relevant bodies of at least all WTO Members in accordance with the principle of openness as described in the TBT Committee Decision’ (paras. 7.687-691).

101 Ismer and Neuhoff, note 10 above, 11, referring to an OECD definition.

102 In support: Ismer and Neuhoff, note 10 above, 11 and de Cendra, note 11 above, 135-136.

103 Advocate General’s Opinion, 6 October 2011, The Air Transport Association of America and Others, Case C-366/10, available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:62010CC0366:EN:NOT: “216. It would be unusual, to put it mildly, to describe as a charge or tax the purchase price paid for an emission allowance, which is based on supply and demand according to free market forces, notwithstanding the fact that the Member States do have a certain discretion regarding the use to be made of revenues generated …”.

and inseverable link between the quantity of fuel held or consumed by an aircraft and the pecuniary burden on the aircraft's operator … actual cost … depends, inasmuch as a market-based measure is involved … on the number of allowances initially allocated to the operator and their market price when the purchase of additional allowances proves necessary … Nor can it be ruled out that an aircraft operator, despite having held or consumed fuel, will bear no pecuniary burden … or will even make a profit by assigning its surplus allowances for consideration".[104]

As a regulation, the question could then arise whether not only GATT but also the TBT Agreement applies to an allowance requirement. The criteria discussed in Section B above apply.

Be that as it may, as argued above, in both cases, 'border adjustment' would be permitted in case (i) the carbon measure imposed on imports can be classified as an ***internal*** measure, that is, a *tax or charge* triggered by an 'internal factor' (e.g. sale or consumption within the regulating country) or 'equivalent' to an internal tax (pursuant to GATT Article II:2(a)), or a *regulation* addressing or affecting an 'internal act' such as internal sale or use (even if, for imports, the tax or regulation is 'collected or enforced … at the time or point of importation' and (ii) the carbon measure on domestic production sufficiently applies to or affects ***products*** (although the obligation to present carbon allowances is normally imposed on *producers*, such obligation may still sufficiently apply to or affect the price or sale of *products*, thereby allowing adjustment at the border). As applied to imports, such border adjustment of a domestic cap-and-trade regime could then take the form of an obligation, imposed on importers, to submit, upon sale in the regulating market, a number of emission allowances that corresponds to the amount of carbon emitted abroad in the production of the import (to simplify matters, one could also use sector averages or default values based on particular production methods). That is, for example, what Michael Morris, CEO of American Electric Power proposed, namely that *emission credits* accompany imports from major emitting nations that have not joined a post-Kyoto global cap-and-trade framework or otherwise capped their emissions.[105]

[104] *Air Transport Association of America et al. v. Secretary of State for Energy and Climate Change*, Case C-366/10, 21 December 2011, para. 142, adding in para. 143: « It follows that, unlike a duty, tax, fee or charge on fuel consumption, the scheme … apart from the fact that it is not intended to generate revenue for the public authorities, does not in any way enable the establishment, applying a basis of assessment and a rate defined in advance, of an amount that must be payable per tonne of fuel consumed for all the flights carried out in a calendar year".

[105] This proposal does, however, raise the question of where importers could buy these allowances? Presumably on the US market. However, if that would be the case, the total amount of allowances (or cap) would have to be increased (or a separate pool of allowances for imports created) so as to take account of

D. National treatment: no discrimination of imports as against like domestic products

Even if border adjustment on imports were permitted for domestic carbon taxes and/or carbon regulations, that is not the end of the story. Once found to be covered by GATT Article III, the carbon tax or regulation must also meet the substantive test in that provision.[106] This test essentially requires that *imported products* are not treated less favourably than *like domestic products*. A crucial question in this respect is which products can thus be compared? The answer is: Only imports and domestic products that are 'like'.[107] Assuming that US climate legislation would apply equally to imports as opposed to domestic products (that is, US steel made with coal would be subject to the same restrictions as imported, Chinese steel made with coal), for our purposes, the issue is primarily whether, for example, steel from China *made with coal* (subject to a *high* carbon tax or regulation) is 'like' domestically produced US steel *using natural gas* (subject to a *lower* carbon tax or regulation, as steel made with natural gas emits less carbon). In other words, one would not expect that US climate legislation will explicitly (or *de jure*) distinguish based on national origin. However, the question remains whether, by taxing one type of steel differently than the other, US legislation distinguishes, in effect (or *de facto*), based on nationality.

On the one hand, it would be rather odd for the WTO to intervene in this question of differentiating between types of steel depending on their carbon footprint, once the WTO has earlier accepted that carbon taxes or regulations can be adjusted at the border.[108] In the *US – Superfund* case, for example, the panel found that 'the tax on certain chemicals, being a tax directly imposed on products, was eligible for border tax adjustment independent of the purpose it served'.[109] In addition, under the substantive test of GATT Article III itself, the panel never questioned whether (taxed) imports *produced with* the chemicals were 'like' US products *not produced with* the chemicals. Once it found that the tax was adjustable at the border, the panel

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carbon emitted by imports; if not, the price for allowances handed out with only internal US emissions in mind, would sky-rocket.

[106] The carve out in GATT Article II:2(a) for 'charges equivalent to an internal tax', is only a carve out for the tariff discipline in GATT Article II; not for the national treatment discipline in GATT Article III, compliance with which is explicitly required in GATT Article II:2(a) itself.

[107] For tax measures both 'like' products and products that are 'directly competitive or substitutable' can be compared (*Ad Note* to GATT Article III:2, second sentence).

[108] Remember, in case no border adjustment would be permitted, then GATT Article III would not apply in the first place and, instead, a violation of GATT Article XI would be found.

[109] Above note 82 at para. 5.2.4.

simply 'did not examine whether the tax on chemicals served environmental purposes and, if so, whether a border tax adjustment would be consistent with these purposes'.[110] If this approach were followed by the WTO Appellate Body, then the distinction made by a carbon tax between high-carbon and low-carbon steel could be equally taken for granted so that it could at least be *presumed* that these different types of steel are *not* like (and a WTO member can, as a result, validly distinguish between them without violating its 'national treatment' obligation).

On the other hand, a series of WTO disputes did revolve around perfectly 'border adjustable' excise taxes on alcoholic beverages which were nonetheless found to be *de facto* discriminatory because the tax system taxed one type of alcoholic beverage (say, predominantly imported vodka) higher than another *like* (or directly competitive) alcoholic beverage that was predominantly domestically produced (say, shochu, predominantly made within Japan). If the WTO were to apply the test it thus adopted to determine likeness of products covered (or not covered) by a carbon tax or regulation, there is little doubt that, for example, steel made with coal and steel made with natural gas would, indeed, be found to be like (or at least directly competitive). According to the WTO Appellate Body,

> a determination of "likeness" … is, fundamentally, a determination about the nature and extent of a competitive relationship between and amongst products.[111]

As explained earlier in this chapter, the very reason to introduce a competitiveness provision – that is, to apply a US carbon tax or regulation also to imports – is that otherwise imports (say, Chinese steel made with coal that was not subject to emission cuts) would gain an unfair competitive advantage as opposed to domestic products (say, more expense US steel made with carbon limits in place and, as a result, produced, for example, with natural gas). In other words, if the United States argues that it needs adjustment at the border because of competitiveness

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[110] *Ibid.*

[111] Appellate Body Report on *EC –Asbestos*, note **Erreur ! Signet non défini.** above. For taxes, also 'directly substitutable or competitive' products can be compared, see above note 107. WTO jurisprudence has used the following four criteria to determine comparability: (1) physical characteristics of the products; (2) end-use; (3) consumer tastes and habits; (4) tariff classification (*ibid.*, para. 101). Under all of these criteria, different types of steel depending on the energy used to produce the steel are most likely to be found comparable (they are physically the same; used for the same end-use; and not normally classified differently for import tariff purposes). Only the third criterion of 'consumer tastes and habits' could arguably make them different if one could demonstrate that US consumers really do make a difference between types of steel in their consumption patterns based on climate change concerns; however, if this were the case, then there would be no need for competitiveness provisions in the first place as consumers themselves would already turn to, and be willing to pay a premium for, low-carbon products without any need for the government to intervene.

concerns, it cannot turn around later under a 'likeness' examination and say that high-carbon and low-carbon products do not compete in the first place.

That said, even if imports covered by US climate legislation (say, a limited list of carbon-intensive raw materials like steel and glass) and imports *not* so covered (say, less carbon-intensive raw materials or finished products like cars)[112] – or one type of product compared to another based on the energy with which it was produced – were all found to be 'like', this does not by itself mean that the legislation discriminates *based on national origin*. As the Appellate Body found:

> even if two products are "like", that does not mean that a measure [violates national treatment] … a [WTO] 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.[113]

In other words, for a competitiveness provision in US climate legislation to be found to violate national treatment it must also be demonstrated that somehow the overall group of imported like products into the United States (e.g., all types of imported steel) is affected more heavily than the overall group of like domestic, US production (e.g., all types of US steel). This would require, for example, that US production is inherently or historically predominantly low-carbon; whereas imports are predominantly high-carbon. In a more recent case, the Appellate Body required even more before it could find a national treatment violation. In that case, it was willing to accept a 'detrimental effect on a given imported product' for as long as it could be 'explained by factors or circumstances *unrelated to the foreign origin of the product*'.[114] If that finding were applied in an

[112] One could imagine, for example, that to make any scheme of border adjustment manageable, it could be limited to a certain number of raw materials that are particularly energy intensive. One study, premised on a carbon tax of 32 Swiss Francs (26 US$) per ton of CO2, concludes, for example, that 'only a handful of carbon-intensive raw materials industries will see price increases … that are large enough to pose a meaningful threat to competitiveness. [Import adjustments] on bulk transfer of ten to twenty basic materials – unfabricated metals, bulk glass and paper, fertilizer and a few chemicals – should suffice to offset nearly all discernible impacts' (see Hoerner and Muller, above note 85 at 21).

[113] *EC—Asbestos*, note **Erreur ! Signet non défini.** above, para. 100 (italics in original, underlining added). In respect of a tax that differentiates between 'directly competitive or substitutable products' (see above note 107), it must be proven that the tax is 'applied so as to afford protection to domestic production' (Appellate Body Report, *Japan – Taxes on Alcoholic Beverages*, WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R, adopted 1 November 1996, DSR 1996:I, 97, pp. 27-31).

[114] Appellate Body Report, *Dominican Republic – Measures Affecting the Importation and Internal Sale of Cigarettes*, WT/DS302/AB/R, adopted 19 May 2005, DSR 2005:XV, 7367, para. 96 (emphasis added). See also Panel Report, *European Communities – Measures Affecting the Approval and Marketing of Biotech Products*, WT/DS291/R, WT/DS292/R, WT/DS293/R, Add.1 to Add.9, and Corr.1, adopted 21 November 2006, DSR 2006:III-VIII, 847, para. 7.2514.

examination of a carbon tax or regulation under GATT Article III, then the environmental reasons summarised earlier could be used to explain why the tax or regulation relates to environmental concerns of climate change, not to 'the foreign origin of the product'. If that explanation were accepted, a violation of GATT Article III could be avoided, and there would be no need to go into the intricate requirements of the GATT Article XX justification (discussed in Section 6). As one recent WTO panel found, under the national treatment test of the TBT Agreement,

> it is possible that a technical regulation [say, a carbon intensity standard], by setting out certain requirements that must be complied with, would affect different operators on the market differently [say, US steel producers may find it easier to comply than Chinese steel producers], depending on a range of factors such as their geographical circumstances, their existing practices or their technical capacities. Such factors may have an impact on how easily products of various origins will or will not be able to meet the requirements at issue. However, the existence of such differences does not necessarily imply, in our view, that the measures at issue discriminate against products of certain origins … This is especially the case, in our view, where the differential impact of the measures on products of different origins is the result of *external factors other than the origin of the products itself* [e.g. the carbon footprint of the steel; not its national origin as such].[115]

Finally, if US climate legislation were to apply to imports, how could US customs figure out the carbon content of specific imports without discriminating against those imports? The carbon is not physically in the steel or cement; hence, one would have to rely on supporting documents provided by the foreign manufacturer. What happens if such voluntary reporting is not complied with? An alternative basis for calculation of the carbon tax (or amount of emission credits to be provided) could then be the amount of carbon that would have been emitted had the imported product been produced in the United States using the US *predominant method of production*.[116] This is exactly the system that was adopted in the *Superfund* legislation for the tax on imports produced with certain chemicals. The GATT panel in this dispute did not find fault with this

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[115] Panel Report, *United States - Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/R, circulated 15 September 2011 (subject to appeal), para. 7.345. See also Panel Report, *United States - Measures Affecting the Production and Sale of Clove Cigarettes*, WT/DS406/R, circulated 2 September 2011 (subject to appeal), paras. 7.268-9 ('it is not sufficient to find inconsistency with Article III:4 solely on the basis that the measure at issue adversely affects the conditions of competition for an imported product. The complainant must also show that those adverse effects are related to the foreign origin of the product at issue … a panel is required to consider whether the detrimental effect(s) can be explained by factors or circumstances *unrelated to the foreign origin of the product*', in our case, the carbon footprint of the product rather than its national origin).
[116] In support, see Hoerner and Muller, above note 85 at 35-6.

mechanism.[117] The WTO Appellate Body Report in *US – Gasoline* did, however, find that if domestic gasoline refiners get an individual baseline – representing the quality of gasoline produced by that refiner – as a starting point for cleaner standards on gasoline, then not to give the same opportunity to importers (which, instead, had to follow a statutory baseline) is discriminatory.[118] The Appellate Body rejected US arguments that verification on foreign soil and enforcement problems related to tracking the exact refinery or origin of specific gasoline made individual baselines, based on information provided by the foreign refiners themselves, an unrealistic option (especially not if compared to similar problems faced in respect of domestic gasoline). Yet, the Appellate Body did agree that statutory baselines – or, in our case, the fall-back of the US *predominant method of production* – could be used 'when the source of imported gasoline could not be determined or a baseline could not be established because of an absence of data'.[119] An alternative method of calculation that has been suggested, largely to avoid any semblance of discrimination, is to calculate a carbon tax or emission allowance requirement on imports based on the carbon emitted using the *best available technology*.[120] This would mean that, for example, Chinese steel made with coal would only have to pay the price of carbon emitted for the same steel produced in the United States with the least polluting technology, say, natural gas. This would, of course, seriously reduce the amount of adjustment that can be imposed on imports and may not be sufficient to address competitiveness concerns. Yet, it would avoid claims of discrimination as all 'like' products – for example, all steel – would then be taxed the same.

E. Most-favoured-nation treatment: no discrimination between like products from different countries

Climate legislation must not only avoid discrimination of imports *versus* domestic products ('national treatment' under GATT Article III). It must also avoid discrimination between imports from different countries. That is the requirement under the so-called 'most-favoured-nation' obligation of GATT Article I. This provision requires, more specifically, that

[117] The same mechanism – voluntary reporting and backup imputation based on the US predominant method of production – was adopted also in the US ozone-depleting chemicals tax as well as the proposed BTU tax legislation of 1993. See above note 83.
[118] Appellate Body Report, *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS2/AB/R, adopted 20 May 1996, DSR 1996:I, 3.
[119] *Ibid.*, p. 27.
[120] See Ismer and Neuhoff, note 10 above, 15.

> any advantage … granted by any Member to any product originating in … any other country shall be accorded <u>immediately and unconditionally</u> to the <u>like</u> product originating in … all other [WTO] Members.

In this respect, at least two problems may arise. First, the United States may decide to apply a carbon tax or regulation only on imports from countries that do not have emission cuts in place. In that event, the United States would be granting an 'advantage' to, for example, European imports (which are subject to emission cuts in Europe) which it does not 'immediately and unconditionally' accord to, for example, China, Brazil or India (which do not have emission cuts in place). The question remains, however, whether European steel produced subject to an emission tax (or emission allowances) is 'like' Chinese steel produced *without* such domestic restrictions. As explained earlier, WTO jurisprudence has interpreted 'likeness' as a question of competitiveness so that the two types of steel are most likely to be found 'alike'.[121] Moreover, the distinction thus made between types of steel that are 'like' can be said to be based on national origin: Chinese steel pays the tax; not European steel.[122] Hence, in all likelihood, US climate legislation that excludes from its scope imports from countries that have emission cuts in place would violate GATT Article I.[123] Crucially, however, this violation can still be justified under the environmental exception in GATT Article XX as explained in Section VI.

A second question that may arise is what would happen if US climate legislation applies to all imports across the board, including imports from countries that have their own emission cuts in place. One could imagine that, for example, Europe would then challenge such legislation, arguing that its producers must, thereby, pay the price of carbon twice: once under domestic EU legislation; and a second time at US customs. From that perspective, Chinese imports, for example, are granted an 'advantage' (i.e., only taxed once) not accorded to European imports. One possible response, at least when the US legislation takes the form of a carbon *tax* on imports, is that Europe can avoid this 'double taxation' by rebating any tax or costs borne by European products upon exportation. That is, after all, the other side of border tax adjustment: European goods get a rebate upon exportation but, according to the destination principle, pay the US carbon

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[121] See above note 111.
[122] *But* see recent cases referred to above notes 113 and 114 which, if applied to GATT Article I, might require additional evidence that the distinction was really made based on national origin rather than environmental concerns.
[123] A similar violation of GATT Article I (MFN) would be found in case a US competitiveness provision would exclude, or apply differently to, developing countries depending on their stage of economic development. Yet, as discussed below in Section 6, this differentiation could be justified (or even required) under GATT Article XX (and/or the *Enabling Clause*, see above note 154).

tax when imported into the United States. Thus, if European exports get taxed twice it is not because the US imposes an import tax, but because the EU failed to rebate exports.[124]

In sum, for a competitiveness provision to target only countries with no emission cuts in place would most likely violate MFN (the United States would then be treating 'like' products differently based on their origin); for a competitiveness provision to apply to all countries – including those that have their own emission cuts in place such as Europe – is less likely to raise an MFN problem (the United States can then be said to be treating all 'like' products in the same way). For a country to treat imports differently based on their carbon footprint (say, more carbon allowances required for Chinese steel imports as compared to Swiss steel imports) may imply differential treatment of 'like products'. However, for there to be an MFN violation one would, in addition, have to demonstrate that this differential treatment is linked to the national origin of the products rather than 'factors or circumstances *unrelated to the foreign origin of the product*' such as the objectively determined carbon footprint of the product or its producer.[125]

6. Environmental exceptions in GATT Article XX

As indicated in the introduction to this chapter, and hinted at throughout the analysis of the substantive rules of the WTO, any violation of the GATT may still be justified under the environmental exceptions of GATT Article XX as a measure

[124] If border adjustment takes the form of a regulation, 'rebating' a regulation upon export is not an option (under the SCM Agreement it could even be regarded as a prohibited export subsidy, see above text at note **Erreur ! Signet non défini.**). In that case, the argument that European imports are discriminated against (because they are covered by a US carbon regulation applied to imports as much as Chinese imports) becomes stronger. On this view, discrimination could then be argued to exist not only when like products are treated differently (say, Chinese steel is taxed; not European steel); but also when different products are treated alike (say, Chinese steel with no emission cuts in place is taxed as much as European steel with emissions cuts). Yet, for Europe to convince the WTO that products become different or 'unlike' based on whether they were produced with or without emission cuts in place would be hard, given the WTO's competitiveness test for likeness explained earlier (see above note 111). Thus, even a carbon regulation that applies to all countries across the board would not likely violate MFN.

[125] See above note 114, albeit under GATT Article III, rather than GATT Article I. To achieve the same approach, the term 'unconditionally' in GATT Article I could then be interpreted as limited to conditions addressed to *countries*, such as whether or not they adopted a certain regulatory system or ratified a treaty; not 'conditions' (or other burdens) addressed to individuals (such as a producer's or product's carbon footprint). See Lorand Bartels, above note 34, at p. 11 and, in support, Stephan Schill, *The Multilateralization of International Investment Law* (Cambridge: CUP, 2009), 129-139 and Panel Report, *Canada – Automobiles*, WT/DS139/R, adopted as modified by the Appellate Body Report, 19 June 2000, para. 10.25 (referring to 'conditions that entailed different treatment of imported products depending upon their origin').

> relating to the *conservation of exhaustible natural resources* if such measures are made effective in conjunction with restrictions on domestic production or consumption.[126]

In other words, a punitive tariff or quantitative restriction on carbon-intensive imports (discussed in Section 4.A above) might still be justified under GATT Article XX. Equally, even if the WTO would *not* accept that a domestic carbon tax, cap-and-trade system or other carbon regulation (such as a maximum carbon intensity standard or carbon label) is subject to 'border adjustment' (as discussed in Section 5.A to C above), a domestic carbon tax or emission credit requirement or other regulation on imports can still be justified under GATT Article XX. Finally, even if domestic climate legislation were found to be discriminatory (for example, because it favours domestic steel over imported steel; or only imposes duties or an emission credits requirement on steel from countries that do not have emission cuts in place, as discussed in Section 5.D and E), GATT Article XX might justify such discrimination.[127]

Whereas pre-1995 GATT panels never found that a measure met the exceptions in GATT Article XX[128]; post-1995 WTO jurisprudence has proven to be much more flexible and 'greener'.

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[126] GATT Article XX(g) (emphasis added). Alternatively, climate legislation might also be justified as a measure under GATT Article XX(b), namely: 'necessary to protect human, animal or plant life or health'. Yet, since the qualifier 'necessary' (in Article XX(b)) is generally perceived as more difficult to meet than that of 'relating to' (in Article XX(g)) this chapter focuses on Article XX(g).

[127] Most observers take the view that violations of the AD Agreement and SCM Agreement cannot be justified under GATT Article XX. Hence, in the case of a carbon 'tariff' (rather than a carbon tax or regulation), it may be better to call and structure the measure as just an 'ordinary customs duty' so that the charge would be seen as falling under GATT Article II and thereby justifiable under GATT Article XX; rather than a violation of the AD Agreement or SCM Agreement that would not normally be justifiable under the environmental exceptions of GATT Article XX. In this regard, and qualifying the argument that Article XX does not apply to the AD and SCM Agreements, note the Appellate Body's understanding in *China – Publications and Audiovisual Products* regarding the relationship between China's Accession Protocol and GATT Article XX ('we find that China may rely upon the introductory clause of paragraph 5.1 of its Accession Protocol and seek to justify these provisions as necessary to protect public morals in China, within the meaning of Article XX(a) of the GATT 1994') (*China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products*, WT/DS363/AB/R, adopted 19 January 2010, para. 233); and the recent Panel Report on *China – Raw Materials* ('the wording and the context of Paragraph 11.3 precludes the possibility for China to invoke the defence of Article XX of the GATT 1994 for violations of the obligations contained in Paragraph 11.3 of China's Accession Protocol') (Panel Reports, *China – Measures Related to the Exportation of Various Raw Materials*, WT/DS394/R and Corr.1, WT/DS395/R and Corr.1, WT/DS398/R and Corr.1, circulated to WTO Members 5 July 2011 (currently under appeal), para. 7.158).

[128] The first *Tuna – Dolphin* panel (above note 90) found that the United States ban on tuna to protect dolphin abroad was not justified under GATT Article XX(b) as, according to the panel, this provision is 'focused on the use of … measures to safeguard … animals or plants within the jurisdiction of the importing country' (para. 5.26). In addition, the panel found that if the United States were permitted to ban imports based on unilaterally determined US standards on dolphin protection, then the GATT 'would provide legal security only in respect of trade between a limited number of contracting parties with

In 2001, the WTO Appellate Body accepted a French ban on imports of asbestos as qualifying under the exception of GATT Article XX(b) for health protection[129]; later that year, it also found that a modified US ban on shrimp based on how these shrimp were caught *abroad* – that is, a pure process measure, similar to a carbon tax or regulation – was justified under GATT Article XX(g) as a conservation measure for endangered turtles.[130]

A. *The conditions under paragraph (g) of GATT Article XX*

For a carbon tax or regulation on imports to meet the GATT Article XX(g) exception, three cumulative conditions must be met:

- *Is the planet's atmosphere an 'exhaustible natural resource'?*: In previous cases, stocks of fish that were not even endangered (herring, salmon and dolphin), clean air and endangered sea turtles were found to be 'exhaustible natural resources'.[131] Considering the international importance given today to the problem of climate change[132] – and the catastrophic consequences that are linked to it for all forms of life on earth – it would be surprising if the WTO would not accept that the planet's atmosphere (that is, the layer of gases around the earth that regulates the planet's climate) is an 'exhaustible natural resource'. The fact that a carbon tax or regulation on imports would address carbon emitted *abroad* should not impose a jurisdictional limitation on a regulation from a carbon-restricting country. What is required is 'a sufficient nexus'[133] between carbon emissions in, for example, China and the climate change consequences that such carbon emissions can have for such carbon-restricting country. In *US – Shrimp*, the United States was permitted to protect turtle in India based on the fact that (1) the turtle are an endangered species; and (2) the turtle are highly migratory animals which are known to occur in US waters. If the

identical internal regulations' (para. 5.27). Note that, for present purposes, a carbon tax or regulation would not impose a full ban, but rather an extra tax or charge.

[129] See note **Erreur ! Signet non défini.** above.

[130] Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products – Recourse to Article 21.5 of the DSU by Malaysia*, WT/DS58/AB/RW, adopted 21 November 2001, DSR 2001:XIII, 6481.

[131] See the Appellate Body in *US – Gasoline* (see note 118 above), considering clean air to be an exhaustible natural resource, and the Appellate Body in *US – Shrimp*, finding that sea turtles at issue also constituted exhaustible natural resources (see Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R, adopted 6 November 1998, DSR 1998:VII, 2755, para. 127-134).

[132] In its assessment of what constitutes 'exhaustible natural resources', the Appellate Body has, indeed, referred to the 'contemporary concerns of the community of nations about the protection and the conservation of the environment' as well as the preamble to the *WTO Agreement* which refers to 'the objective of sustainable development' (Appellate Body Report, *US – Shrimp*, see note 131 above, para. 129).

[133] *Ibid.*, para. 133.

United States was permitted to protect turtle in India that may at some point cross US waters, it is hard to imagine why a country would not be permitted to protect against carbon emitted in India that certainly crosses territorial borders and is known by science to be as dangerous for climate change as carbon emitted within that carbon-restricting country itself. The world's atmosphere is, after all, a global commons; and carbon emissions are, because of their global impact, a collective action problem.[134]

- *Does domestic climate legislation 'relate to the conservation of' the planet's atmosphere?:* Importantly, what needs to be examined under this test is not the actual trade restriction or discrimination found earlier under other GATT provisions, but rather the domestic legislation *as a whole*.[135] The 'related to' test requires that there be a 'substantial relationship' between the domestic climate legislation and the conservation of the planet's atmosphere and related climate. This relationship must be 'a close and genuine relationship of ends and means'.[136] For example, the legislation must not be 'disproportionately wide in its scope and reach in relation to the policy objective of protection and conservation' of the planet's climate.[137] This test must be applied to the legislation as such and its general design; not so much to its specific details. As a result, in two WTO cases (*US – Gasoline* and *US – Shrimp*) this test was

[134] See Stern, note 5 above.

[135] Appellate Body Report, *US – Gasoline*, see note 118 above, pp. 14-16 ('The chapeau of Article XX makes it clear that it is the "measures" which are to be examined under Article XX(g), and not the legal finding of "less favourable treatment.'). In apparent contrast with the Appellate Body Report on *US – Gasoline*, see however the Appellate Body Report on *Thailand – Cigarettes (Philippines)*, where the Appellate Body, referring to the 'necessity test' in GATT Article XX(d) stated that 'when Article XX(d) is invoked to justify an inconsistency with Article III:4, what must be shown to be "necessary" is the treatment giving rise to the finding of less favourable treatment. Thus, when less favourable treatment is found based on differences in the regulation of imports and of like domestic products, the analysis of an Article XX(d) defence should focus on whether those regulatory differences are "necessary" to secure compliance with "laws or regulations" that are not GATT-inconsistent.' (Appellate Body Report, *Thailand – Customs and Fiscal Measures on Cigarettes from the Philippines*, WT/DS371/AB/R, adopted 15 July 2011, para. 177). It is not clear whether this Appellate Body understanding would influence the 'relating to' test in GATT Article XX(g), and whether the Appellate Body is hereby reverting to previous GATT panels' understanding on this matter (see GATT Panel Report, *United States – Taxes on Automobiles*, DS31/R, 11 October 1994, unadopted, para. 5.64 ('It also recalled that it was not the CAFE scheme as a whole but the specific measure inconsistent with Article III:4 that required justification and which, under Article XX(g), needed to be primarily aimed at the conservation of exhaustible natural resources…'); and GATT Panel Report, *United States Section 337 of the Tariff Act of 1930*, L/6439, adopted 7 November 1989, BISD 36S/345, para. 5.27 ('In the view of the Panel, what has to be justified as "necessary" under Article XX(d) is each of the inconsistencies with another GATT Article found to exist …')).

[136] Appellate Body Report, *US – Shrimp*, see note 131 above, para. 136.

[137] *Ibid.*, at para. 141. This reference to 'scope and reach' may justify a possible limitation of a carbon tax or other regulation on imports that is limited to a certain class of energy-intensive raw materials (as suggested in note 112 above) even if such limited list might otherwise violate national treatment or MFN.

easily met.[138] Unless there are blatant inconsistencies or protectionist features in the domestic legislation, climate change legislation should normally pass this 'related to' test. For environmental reasons in support of a competitiveness provision, see Section 2.A above.

- *Is the domestic climate legislation on imports 'made effective in conjunction with restrictions on domestic production and consumption?*: As long as the domestic legislation imposes broadly similar restrictions also on domestic businesses, this clause will be met. In *US – Gasoline*, the Appellate Body confirmed that this is only a 'requirement of *even-handedness* in the imposition of restrictions … [there is] no textual basis for requiring identical treatment of domestic and imported products'.[139] More specifically, even if the legislation in some of its details were to discriminate imports as opposed to domestic products, the legislation or measure as a whole can still be found to meet this test (as was the case in *US – Gasoline*).[140] This third test under GATT Article XX(g) should therefore be not difficult to meet.

B. The conditions under the introductory phrase of GATT Article XX

Finally, even if all three conditions under the specific paragraph of GATT Article XX(g) were met, the domestic climate legislation that was found to violate any other GATT provision would also have to fulfil the introductory phrase of GATT Article XX. This phrase requires that

> 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.[141]

The Appellate Body has given great importance to the introductory phrase of GATT Article XX exception. For present purposes as well, this phrase may well be the most important provision in the entire GATT agreement. The introductory phrase of GATT Article XX is not about the

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[138] See, however, the recent Panel Report on *China – Raw Materials* (see note 127 above, paras. 7.434-7.435), where the panel found that China had not met its burden of proving that its measures, an export quota on refractory-grade bauxite and an export duty on fluorspar 'relate to the conservation' of these raw materials – considered to be 'exhaustible natural resources' ('For the Panel, measures that increase the costs of refractory-grade bauxite and fluorspar to foreign consumers but decrease their costs to domestic users are difficult to reconcile with the goal of conserving refractory-grade bauxite and fluorspar.').
[139] Appellate Body Report, *US – Gasoline*, see note 118 above, p. 21.
[140] As the Appellate Body in *US – Gasoline* (see note 118 above, p. 21) explains, if the exception in GATT Article XX(g) required 'identity of treatment … it is difficult to see how inconsistency with Article III:4 [i.e. a national treatment violation] would have arisen in the first place'.
[141] Chapeau of GATT Article XX (emphasis added). Article 3.5 of the *UN Framework Convention on Climate Change* provides similarly that '[m]easures 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'.

climate legislation as such, but about its 'detailed operating provisions' and how it is 'actually applied'.[142] As importantly, under this phrase, according to the Appellate Body in *US – Shrimp*, the environmental policy goal no longer matters; the legitimacy of the policy goal and how the legislation relates to it must be examined under paragraph, not the introductory phrase.[143] Finally, the discrimination to be avoided under the introductory phrase of Article XX ('arbitrary or unjustifiable discrimination between countries where the same conditions prevail') is different from the discrimination referred to earlier under national treatment (GATT Article III) and MFN (GATT Article I). Under Articles I and III, the discrimination is focused on 'like *products*'; under Article XX it is focused on '*countries* where the same conditions prevail'. Moreover, and quite logically, the discrimination under the exception in Article XX must be different in 'nature and quality'[144] or 'go beyond'[145] the discrimination under the rule in Article I or III. Indeed, if the discrimination in Article XX were the same as that in, say, Article I on MFN, then as soon as one finds MFN discrimination, one would not, by definition, be able to justify it under Article XX.[146] At the same time, discrimination under the introductory phrase of Article XX covers both discrimination between different foreign countries exporting to the carbon-restricting country (MFN-type discrimination as was found to be the case in *US - Shrimp*) and discrimination between foreign countries and the carbon-restricting country (national treatment-type discrimination as was found to be the case in *US - Gasoline*).

With this general background in mind, when examining whether a competitiveness provision within a carbon-restricting policy amounts to 'arbitrary or unjustifiable *discrimination* between countries where the *same conditions* prevail', the Appellate Body, based on its decisions in previous environmental disputes, is likely to refer to at least the following three elements:

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[142] Appellate Body Report, *US – Shrimp*, see note 131 above, para. 160.
[143] Appellate Body Report, *US – Shrimp*, see note 131 above, para. 149. But see Appellate Body Report, *Brazil - Measures Affecting Imports of Retreaded Tyres*, WT/DS332/AB/R, adopted 17 December 2007, para. 227 which does refer back to the objectives of the measure (under the paragraphs of Article XX) to check discrimination under the chapeau ('there is arbitrary or unjustifiable discrimination when a measure provisionally justified under a paragraph of Article XX is applied in a discriminatory manner "between countries where the same conditions prevail", and when the reasons given for this discrimination bear no rational connection to the objective falling within the purview of a paragraph of Article XX, or would go against that objective. The assessment of whether discrimination is arbitrary or unjustifiable should be made in the light of the objective of the measure').
[144] Appellate Body Report, *US – Shrimp*, see note 131 above, para. 150.
[145] Appellate Body Report, *US – Gasoline*, see note 118 above, p. 28.
[146] If not, '[t]o proceed down that path would be both to empty the [introductory phrase] of its contents and to deprive the exceptions … of meaning' (Appellate Body Report, *US – Gasoline*, see note 118 above, p. 23).

- *Does the domestic climate legislation take account of local conditions in foreign countries or does it essentially require that foreign countries adopt domestic policies?* In *US – Shrimp*, the original US ban was faulted because of its 'intended and actual coercive effect on the specific policy decisions made by foreign governments'; more specifically, it required that all other countries 'adopt essentially the same policy' as the United States does; '[o]ther specific policies and measures that an exporting country may have adopted for the protection and conservation of sea turtles are not taken into account'.[147] When, in response, the United States no longer required the 'adoption of essentially the same program' but conditioned market access for imported shrimp on 'the adoption of a program *comparable in effectiveness*' to that of the US program, the Appellate Body found that such 'allows for sufficient flexibility in the application of the measure so as to avoid "arbitrary or unjustifiable discrimination"'.[148] This would seem to require that any carbon tax or regulation on imports is sufficiently flexible and takes 'into consideration different conditions which may occur' in different foreign countries. This requirement has two important consequences for any competitiveness provision:

Firstly, it may force the carbon-restricting country to consider whether a foreign country already imposes emission cuts or otherwise addresses climate change. This, in turn, may oblige (or at least enable) the carbon-restricting country to impose lower (or no) import taxes or emission allowance requirements on imports from countries that have their own climate policies in place.[149] In other words, even if excluding European countries would violate MFN (as suggested earlier) such violation would seem to be justified under the introductory phrase of GATT Article XX. Note, however, that the same reasoning would then apply to, for example, Chinese efforts to combat climate change (China has, for example, introduced a domestic target to improve energy intensity and imposed an export tax on energy-intensive exports such as iron and steel, cement, aluminium and certain chemicals).[150]

Secondly, the requirement to take 'into consideration different conditions which may occur'[151] in different foreign countries, may force the carbon-restricting country to consider whether developing countries should, for historical reasons, carry the same burden as other

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[147] Appellate Body Report, *US – Shrimp*, see note 131 above, paras. 161 and 163.
[148] Appellate Body Report, *US – Shrimp (Implementation under Article 21.5)*, note130 above, para. 144.
[149] The Kyoto Protocol, for example, leaves it open as to how countries meet their targets, be it through taxes, regulations or a cap-and-trade system.
[150] See note 12 above. See also follow-up to the *Stern Review*, note 12 above, 20 ('This compares well to the cost imposed by the EU ETS [emissions-trading scheme] on firms in these sectors. At allowance prices of €20/t CO2, the impact is estimated at 1% for integrated steel and 4% for aluminum, based on the increase in electricity prices. Current prices for EU ETS allowances are €2 to €5 euros, implying far smaller impacts'). India as well has made 'changes to energy subsidies, plans for more efficient coal-fired power plant[s] and further development of innovative new technologies for renewable energy' (*ibid.*, 4).
[151] See note 147 above.

countries. Under the UN Framework Convention on Climate Change (ratified by the United States), for example, protection of the climate system must be pursued 'on the basis of equity and in accordance with [the parties'] common but differentiated responsibilities and respective capabilities'.[152] This, in turn, may oblige (or at least enable) the carbon-restricting country to impose a graduated import tax or regulation depending on the stage of economic development of the foreign country in question.[153] In other words, the introductory phrase of Article XX may force the carbon-restricting country to have lower or even no carbon restrictions on imports from developing countries, especially the very poor ones.[154] In contrast, if the climate legislation would be found to comply with GATT rules and there would, therefore, be no need to revert to the environmental exception in GATT Article XX, such graduation or even exclusion of (i) countries with their own climate policies in place, and (ii) developing countries, could be avoided. That largely explains why it is, after all, useful to try to justify future climate legislation as it applies to imports as, for example, 'border tax adjustment' rather than justify the measure directly under the exceptions in GATT Article XX.

- *Before imposing the 'unilateral' carbon tax or regulation on imports, did the carbon-restricting country engage in 'serious, across-the-board negotiations with the objective of*

[152] Article 3.1 of the UN Framework Convention on Climate Change. See also Article 3.4 of the Convention: 'Policies and measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each Party and should be integrated with national development programmes, taking into account that economic development is essential for adopting measures to address climate change'.

[153] Recall that under the Kyoto Protocol, developing countries did not have to commit to any emission reductions. Yet, since the United States did not ratify the Kyoto Protocol it cannot be held by this concession that developing countries should not cut emissions at all (but see the UN Framework Convention on Climate Change, note 152 above, which the United States did ratify). If the EU were to impose a carbon tax on imports, however, the fact that it ratified the Kyoto Protocol could force the EU to exclude those developing countries from its carbon tax. That the WTO may, and should, in certain cases refer to other treaties, such as the Kyoto Protocol, as long as both disputing parties are bound by such other treaty, see Joost Pauwelyn, 'How to Win a WTO dispute based on non-WTO law: Questions of Jurisdiction and Merits', *Journal Of World Trade* (2003) 997.

[154] Imposing a more lenient carbon tariff or tax on developing countries, especially the poorest ones, could not only be justified because 'the same conditions' do not prevail in those countries (under GATT Article XX); but also with reference to the 1979 *Enabling Clause* which permits developed countries to give *tariff* preferences to developing countries that they do not need to extend to developed nations. See above note 44 for how Europe gives tariff preferences to developing countries that have signed the Kyoto Protocol. Making a distinction between developing countries based on whether they have ratified Kyoto or have other climate change policies in place, could then be justified with reference to the 'development, financial and trade needs of developing countries' as permitted by the Appellate Body Report on *EC – Tariff Preferences* (Appellate Body Report, *European Communities – Conditions for the Granting of Tariff Preferences to Developing Countries*, WT/DS246/AB/R, adopted 20 April 2004, DSR 2004:III, 925). See also, Daniel Gros, 'A border tax to protect the global environment?', *CEPS Commentary*, Centre For European Policy Studies, 2009. The *Enabling Clause* also permits extra preferential treatment in this context for least developed countries.

concluding bilateral or multilateral agreements' to address climate change?[155] This does not require the actual conclusion of agreements with, say, China, Brazil or India[156], but at the very least good faith efforts by the carbon-restricting country to bring these countries into the fold of an international effort to combat climate change before making a move to the second or third best option of unilateral border adjustments. Such negotiations must also occur on a non-discriminatory basis with all countries affected.[157] Note, however, that unlike the absolute ban in *US – Shrimp*, a carbon tax or regulation on imports would not ban imports, but only make them pay the social cost of carbon. In that sense, the unilateral action would be less trade restrictive than in *US - Shrimp*.

- *Does the implementation and administration of the climate legislation respect 'basic fairness and due process'?*[158] If there would, for example, be certification or rebates for domestic efforts to fight climate change or developing countries, is the process transparent and predictable; are parties heard and is the system non-discriminatory in its procedures?

7. Conclusion

Concerns of economic competitiveness are a core explanation for why there are, to date, relatively few mandatory limits on greenhouse gas emissions, be it under domestic climate legislation or international treaties (Section 1). This chapter examined the advantages and disadvantages of including a competitiveness provision in domestic climate policy (Section 2). Although such competitiveness provision could take different forms, one of the options is to enlist trade policy in the fight against global warming (Section 3). Most controversial by far would be the imposition of trade restrictions on imports based on the carbon or other greenhouse gases that were emitted in their production *abroad* (so-called trade restrictions in respect of 'foreign-emitted' or 'offshore' carbon). Although there are certain options to be avoided as they would most likely violate WTO law (e.g. anti-dumping duties and countervailing (anti-subsidy) duties, discussed in Section 4), the broader WTO consistency or authorisation of such process-based restrictions is unclear and remains to be tested. When carefully designing carbon restrictions on imports as the extension or 'border adjustment' of *internal* carbon measures (that is, a tax, charge or regulation on imports triggered by an 'internal factor' or affecting an 'internal

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[155] Appellate Body Report, *US – Shrimp*, see note 131 above, para. 166.
[156] Appellate Body Report, *US – Shrimp (Implementation under Article 21.5)*, note130 above, para. 124.
[157] Appellate Body Report, *US – Shrimp*, see note 131 above, paras. 169-172 (where the United States was found to have discriminated in favour of five countries by concluding the Inter-American Convention for the protection and conservation of sea turtles, without negotiating with other countries).
[158] Appellate Body Report, *US – Shrimp*, see note 131 above, para. 181.

act' such as sale or consumption within the regulating country) and ensuring that the carbon measure on domestic production sufficiently applies to or affects *products*, carbon restrictions on imports can pass WTO muster on condition that they avoid origin-based discrimination. Moreover, certain discriminations or other WTO violations could also be justified under environmental exceptions (GATT Article XX). Carbon leakage measures and border tax adjustments can therefore be WTO consistent. The devil will be in the details.