CLIMATE POLICY AND BORDER ADJUSTMENT REGULATION:
DESIGNING A COHERENT RESPONSE

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The Australian Government's Clean Energy Legislative Package *includes the legislative infrastructure for a carbon tax which came into full effect in July 2012. Although the legislation is comprehensive, we argue that it lacks a mechanism that adequately deals with the competing policy objectives of: (a) achieving reductions in greenhouse gas emissions; (b) not impairing national economic growth; and (c) ensuring that international obligations regarding response measures, such as a carbon tax, do not adversely affect developing countries. The potential policy frictions between these objectives might have been reduced had the Government included a well-known trade mechanism which could have provided a more coherent interface for these competing policy objectives. That mechanism is the 'border tax adjustment'. This paper explores a range of misunderstandings surrounding the use of border tax adjustments, which may well explain why they were not implemented. Furthermore, this paper will explain how, if properly understood, border tax adjustments could make a significant contribution to a consistent climate policy that balances the competing concerns of climate change, trade, economic and developmental policy objectives.*

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I INTRODUCTION

In Australia and other countries, an intense public debate regarding which domestic policies to implement for the purposes of addressing anthropogenic

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climate change has been underway.[1] Although the science clearly demonstrates that immediate and dramatic cuts in greenhouse gas emissions are required to avoid catastrophic climate change in the latter half of this century,[2] policies such as carbon taxes or emissions trading schemes are resisted due to the perception that such policies will impact negatively on national economic performance.[3] Industry and other lobby groups argue that the competitiveness of domestically-produced goods and services will be severely challenged, both at home and abroad.[4] Unsurprisingly, the debate has become highly politicised and is beset by both misinformation and distortion.

Despite this debate, on 9 December 2011, the Australian Governor-General gave Royal Assent to a collection of 21 bills known as the *Clean Energy Legislative Package* (‘*Package*’), which enacted the Gillard Labor Government’s policy response to climate change. The centrepiece of the *Package* is the *Clean Energy Act 2011* (Cth), which provides the regulatory infrastructure necessary to implement carbon taxes.[5] Although the *Package* is comprehensive with respect to domestic matters, the Government has failed to take advantage of a mechanism sanctioned under international trade law that provides a more coherent means of interfacing these conflicting policy objectives. Balancing competing policy objectives requires achieving reductions in greenhouse gas emissions in a manner that does not impair national economic interests, whilst simultaneously upholding Australia’s international obligation to ensure that response measures such as a carbon tax do not adversely affect developing countries.

The trade policy mechanism that the Government could have incorporated in the *Package* that enables a balancing of these competing policy objectives is the

1 See, eg, Andrew Dessler and Edward A Parson, *The Science and Politics of Global Climate Change: A Guide to the Debate* (Cambridge University Press, 2nd ed, 2010); Mike Hulme, *Why We Disagree about Climate Change: Understanding Controversy, Inaction and Opportunity* (Cambridge University Press, 2009); Clive Hamilton, *Running from the Storm: The Development of Climate Change Policy in Australia* (University of New South Wales Press, 2001).

2 See, eg, Kevin E Trenberth et al, ‘Intergovernmental Panel for Climate Change (IPCC) and Attribution and Prediction of Climate: Progress since the Fourth Assessment’ (Paper presented at OceanObs’09: Sustained Ocean Observations and Information for Society, Venice, Italy, 21–25 September 2009).

3 See generally Kathryn Harrison, ‘The Comparative Politics of Carbon Taxation’ (2010) 6 *Annual Review of Law and Social Sciences* 507; Robyn Eckersley, ‘The Politics of Carbon Leakage and the Fairness of Border Measures’ (2010) 24 *Ethics & International Affairs* 367, 368.

4 In this paper, the requirement to purchase emissions allowances under an emissions trading scheme will be treated as being equivalent to a tax within the meaning of the World Trade Organization rules: see *Marrakesh Agreement Establishing the World Trade Organization*, opened for signature 15 April 1994, 1867 UNTS 3 (entered into force 1 January 1995) annex IA (‘*Agreement on Subsidies and Countervailing Measures*’) art 1 (‘*SCM Agreement*’). For a more detailed discussion, see Donald Feaver, Will McGoldrick and Victoria Boyd-Wells, ‘Is Australia’s EAP a Prohibited Export Subsidy?’ (2010) 44 *Journal of World Trade* 319.

5 *Clean Energy Act 2011* (Cth) (‘*Package*’). The entry into force date of the carbon tax was 2 April 2012.

'border tax adjustment' ('border adjustment') mechanism.[6] There are several compelling reasons why border adjustments should be included in any approach to mitigating the impacts of climate policy on energy-intensive trade-exposed industries. First, if properly designed, border adjustments can be used to offset or adjust price differentials between domestic goods subject to national climate policies such as a carbon tax and foreign-produced goods that are not subject to similar policies in their country of production. Secondly, border adjustments are attractive because under the World Trade Organization agreements their legality appears to be fairly well-settled — at least in general terms.[7]

The broad objective of this paper is to address a foundational problem with the considerable literature on border adjustments. This literature, which addresses a variety of issues from legality of taxes applicable under international trade agreements to the economic effects of border taxes, lacks a fundamental coordinating rationale or clear structural framework. Rather than understanding border adjustments as a policy measure incidental, or 'tacked-on' to, a climate policy measure such as a carbon tax or an emissions trading scheme, border adjustments should be considered an essential component to an integrated policy framework. Accordingly, the question this paper considers is how border adjustments can be used to design more coherent national climate policies and thus reconcile the competing policies of climate change, trade, economic and developmental policy objectives. To this end, the structure of the paper is as follows: Part II will address relevant legal and operational concepts to provide a foundation upon which Part III will then build its analysis of misconceptions and distortions and their implications for the design of coherent climate policy. These Parts are followed by a discussion of how border measures can be designed to accommodate international obligations to mitigate the effects of 'response measures' such as a carbon tax upon developing countries in Part IV. A brief summary and conclusion are presented in Part V.

II LEGAL AND OPERATIONAL CONTEXT

The use of border adjustments to complement domestic climate policies has sparked criticism from several quarters. Free trade advocates argue that rather than serving legitimate climate policy objectives, border adjustments are better

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6 There is a large and growing body of literature that examines the economic and legal aspects of border adjustments as a means of addressing these concerns: see, eg, Roland Ismer and Karsten Neuhoff, 'Border Tax Adjustment: A Feasible Way to Support Stringent Emission Trading' (2007) 24 *European Journal of Law and Economics* 137; Susanne Dröge, 'Border Adjustment to Tackle Carbon Leakage' in Karsten Neuhoff and Felix C Matthes (eds), *The Role of Auctions for Emissions Trading* (Climate Strategies, 2008) 54 <http://www.climatestrategies.org/component/reports/category/1/77.html>; Julia Reinaud, 'Trade, Competitiveness and Carbon Leakage: Challenges and Opportunities' (Energy, Environment and Development Programme Paper No 09/01, Chatham House, January 2009).

7 See Javier de Cendra, 'Can Emissions Trading Schemes Be Coupled with Border Tax Adjustments? An Analysis vis-à-vis WTO Law' (2006) 15 *Review of European Community & International Environmental Law* 131. See also Steve Charnovitz, 'Trade and Climate: Potential Conflicts and Synergies' in *Beyond Kyoto: Advancing the International Effort against Climate Change* (Pew Center for Global Climate Change, 2003) 141, 148; Joost Pauwelyn, 'US Federal Climate Policy and Competitiveness Concerns: The Limits and Options of International Trade Law' (Working Paper No NI WP 07-02, Nicholas Institute for Environmental Policy Solutions, Duke University, April 2007) 17.

characterised as a form of spurious protectionism in the nature of punitive tariffs.[8] However, such a characterisation exemplifies two different problems: first, it indicates that border adjustments are poorly understood in technical terms, as demonstrated by how they are being abused in the political context;[9] and secondly, developing countries have criticised the use of border adjustments by developed countries as contrary to obligations under the *United Nations Framework Convention on Climate Change* ('*UNFCCC*')[10] and the *Kyoto Protocol to the Framework Convention on Climate Change* ('*Kyoto Protocol*'),[11] which require that response measures implemented by developed countries do not adversely impact the interests of developing countries.

Whilst, ideally, 'the greater the degree of international agreement on climate change policies, the less potential friction there should be with trade policy',[12] the more complex challenge of harmonising national climate policies is unlikely to occur anytime soon.[13] In the absence of international consensus and harmonisation of national climate policies, properly designed border adjustments could form an integral part of various national climate policy measures — ie, not merely ad hoc adjunct measures. This would provide nation-states with considerable climate policy flexibility, whilst also protecting and enabling those national economies subject to different climate policies to be legally and effectively linked to international markets.

Border adjustments do provide a means of integrating trade and climate policy to address the concerns of both price competitiveness and carbon leakage.[14] They are not, however, a panacea.[15] They were never designed to accommodate the complex economic and social policy issues in challenging policy areas such as

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8 Ben Lockwood and John Whalley, 'Carbon-Motivated Border Tax Adjustments: Old Wine in Green Bottles?' (2010) 33 *World Economy* 810, 812; C Ford Runge, 'Trade Protectionism and Environmental Regulations: The New Nontariff Barriers' (1990) 11 *Northwestern Journal of International Law & Business* 47, 47.

9 See, eg, the comments of the Australian Minister for Trade in response to the European Union carbon pricing proposals: Sid Maher, 'Labor Fights "Old Europe" over Trade', *The Australian* (online), 4 October 2010 <http://www.theaustralian.com.au/national-affairs/labor-fights-old-europe-over-trade/story-fn59niix-1225933590009>.

10 *United Nations Framework Convention on Climate Change*, opened for signature 9 May 1992, 1771 UNTS 107 (entered into force 21 March 1994) art 3(2) ('*UNFCCC*').

11 *Kyoto Protocol to the Framework Convention on Climate Change*, opened for signature 11 December 1997, 2303 UNTS 148 (entered into force 16 February 2005) art 2(3) ('*Kyoto Protocol*').

12 Patrick Low, Gabrielle Marceau and Julia Reinaud, 'The Interface between the Trade and Climate Change Regimes: Scoping the Issue' (Paper presented at the Thinking Ahead on International Trade (TAIT) — 2nd Conference: Climate Change, Trade and Competitiveness: Issues for the WTO, Geneva, Switzerland, 16–18 June 2010) 4.

13 Given the challenges in negotiating an agreement to set global emissions reduction targets in the period after the *Kyoto Protocol* expires, it is unlikely that any multilateral agreement to harmonise domestic climate policies will be considered in the near future: see Will McGoldrick, Donald Feaver and Andrew Maver, 'Fiduciary Duty and Climate Governance: Challenges for International Diplomacy and Law' in Ken Coghill, Charles Sampford and Tim Smith (eds), *Fiduciary Duty and the Atmospheric Trust* (Ashgate, 2012) 9, 9.

14 Aaron Cosbey, 'Border Carbon Adjustment' (Paper presented at the Trade and Climate Change Seminar, Copenhagen, Denmark, 18–20 June 2008) 1.

15 See, eg, ibid; Matthew Genasci, 'Border Tax Adjustments and Emissions Trading: The Implications of International Trade Law for Policy Design' (2008) 2 *Carbon & Climate Law Review* 33.

climate change.[16] Rather, they were intended to fulfil a much narrower economic and political purpose. Border adjustments were first included in the *General Agreement on Tariffs and Trade*[17] as a means of enabling countries to adjust fiscal differences between domestically produced and imported goods arising from the imposition of domestic taxes or regulations that raised domestic product prices. In brief, border adjustments were intended to function as a structural mechanism linking economies having disparate domestic policies with the international market. They permit countries with differing domestic policies to 'level the playing field' by adjusting for internal fiscal policy differences at the product level, either at the point of import or export, without having to harmonise their domestic policies with those of other nations.[18]

If policymakers were to approach the design of national climate policies in such a way as to manage the economic effects of those policies using border adjustments, a better outcome in terms of policy coherence, transparency and administrative efficiency could be achieved. An obstacle to such outcomes, however, stems from a lack of knowledge of both the legal and operational characteristics of border adjustments. Accordingly, these are examined in brief below.

A *Relevant Legal Characteristics*

Border adjustments are not a recent policy innovation. Since the late 18th century governments have applied border adjustments,[19] and as noted by the Organisation for Economic Co-Operation and Development: 'in the 19th century, rules for the use of border tax adjustments were included in intergovernmental agreements to prevent the protectionist use of this instrument'.[20]

Unlike other policy measures contained in the agreements of the WTO — such as the rules regulating anti-dumping, technical barriers to trade or rules of origin, all of which are expressly identified and normatively articulated as discrete trade policy mechanisms granting rights and imposing obligations — border adjustments are regulatory measures that arise by implication or are 'incidental' to the general legal rights and obligations of states. They are contained in arts I, II and III of the *General Agreement on Tariffs and*

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16 For a fuller insight into the original purpose of border tax adjustments, see *Report by the Working Party on Border Tax Adjustments*, GATT Doc L/3464 (20 November 1970) GATT BISD 18S/97 ('*Border Adjustments Report*').

17 *General Agreement on Tariffs and Trade*, opened for signature 30 October 1947, 55 UNTS 194 (entered into force 1 January 1948) ('*GATT 1947*').

18 The distinction between border adjustments functioning as a linking device rather than a harmonisation mechanism is critical to any future negotiations concerning the need to address shortcomings in the present rules. The objectives of any such discussion would need to tackle broader issues, such as seeking agreement on the relationship between climate policy and border adjustments, as well as determining common approaches to adjusting for differences in national climate policies.

19 Frank Biermann and Rainer Brohm, 'Implementing the *Kyoto Protocol* without the United States: The Strategic Role of Energy Tax Adjustments at the Border' (2005) 4 *Climate Policy* 289, 291.

20 Organisation for Economic Co-Operation and Development, *The Political Economy of Environmentally Related Taxes* (OECD Publishing, 2006) 92.

Trade 1994 ('*GATT 1994*')[21] in the case of import adjustments and the *Agreement on Subsidies and Countervailing Measures* ('*SCM Agreement*') in the case of export rebates. As such, the provisions relating to border adjustments neither grant rights, nor impose obligations upon WTO member states. Instead, they can be described as WTO-sanctioned measures that explicitly acknowledge a country's international trade rights and obligations and link the international dimension with internal policy sovereignty. Stated another way, border adjustments are an acknowledgement of sovereign policy rights of countries rather than the regulation of rights and obligations between WTO member states.[22]

The GATT Working Party on Border Tax Adjustments established in 1968 considered a range of issues surrounding the design and use of border adjustments and examined their characteristics in some depth. The *Report by the Working Party on Border Tax Adjustments* ('*Border Adjustments Report*') identified the key elements of a border adjustment, which are as follows:

(i) it is a fiscal measure;
(ii) that relieves products of the fiscal consequences of a domestic tax by rebating some or all of the tax paid on domestically produced products that are 'similar' ('like products') when those domestic goods are exported; and
(iii) charging some or all of a tax on imported like product when it is imported.[23]

The definition identifies three important features:

- the two-sided character of the devices — ie, the import and export dimensions of border adjustments;
- the central units of analysis being 'fiscal measure'[24] and 'like product'; and
- that the operation of the devices is based upon the destination's principle of taxation.[25]

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21 *Marrakesh Agreement Establishing the World Trade Organization*, opened for signature 15 April 1994, 1867 UNTS 3 (entered into force 1 January 1995) annex 1A ('*General Agreement on Tariffs and Trade*') arts I, II and III ('*GATT 1994*').

22 Serena B Wille, 'Recapturing a Lost Opportunity: Article III:2 *GATT 1994 Japan — Taxes on Alcoholic Beverages 1996*' (Working Paper No 11/97, Jean Monnet Center for International and Regional Economic Law & Justice, New York University School of Law, 1997) <http://centers.law.nyu.edu/jeanmonnet/archive/papers/97/97-11--III.html>.

23 *Border Adjustments Report*, GATT Doc L/3464, [4].

24 The border adjustment is a fiscal measure. That is, it is not a prohibition or protection of some sort. Nor is it a punitive measure or an incentive. Rather, it is an adjustment levied to account for cost inputs associated with domestic policies. The adjustment should therefore level the price of domestically produced goods to those imported in the case of import-side adjustments or level the price of domestically produced goods on the international market to those produced in different policy environments.

We now turn to discuss these features.

1 *Import-Side*

The provisions regulating the use of import-side border adjustments are contained in arts II and III of the *GATT 1994*. Article II(1) states the general rule that tariffs should only be imposed at the border of importing members.[26] However, art II(2) provides an exemption to the general rule:

> Nothing in this Article shall prevent any contracting party from imposing at any time on the importation of any product
>
> (a) a charge equivalent to an internal tax imposed consistently with the provisions of paragraph 2 of Article III 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 …[27]

In the absence of any WTO case law clarifying art II(2), a literal reading of art II(2)(a) permits countries to impose price-based measures (ie, taxes) at the border *in addition to, but independently from*, tariffs. The distinction between tariff and border adjustments is critical in respect of the climate policy debate as is discussed in detail in Part III(A) below. In addition, the tax imposed on imported goods must satisfy a correspondence test. The 'charge' levied against the imported good must correspond to an equivalent charge imposed either on a 'like domestic product' or a charge levied upon 'an article' used in the manufacture or production of that good 'in whole or in part'.[28]

2 *Export-Side Rebate*

The provisions relating to the use of the export-side of border adjustments are contained in art VI(4) of the *GATT 1994* as well as the *SCM Agreement*.[29] The export-side adjustment takes the form of a statutorily permitted rebate of the charges that are incurred by producers in the manufacture of goods. The rebate of domestic charges is paid to the exporter when domestic goods are exported. They are not considered to be a prohibited export subsidy under art 3.1 of the

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25 Paul Demaret and Raoul Stewardson, 'Border Tax Adjustments under *GATT* and EC Law and General Implications for Environmental Taxes' (1994) 28(4) *Journal of World Trade* 5, 6. See also Christina Pitschas, '*GATT*/WTO Rules for Border Tax Adjustment and the Proposed European Directive Introducing a Tax on Carbon Dioxide Emissions and Energy' (1995) 24 *Georgia Journal of International & Comparative Law* 479, 485. As a destination-based measure, the adjustment is determined on the basis of the destination, not the location of its production. Whereas other measures count producer country inputs — ie, calculate the country of origin for the purposes of harmonised tariffs — border measures do not focus on the country of origin. Rather, they assume a neutral international market and focus on the goods' country of destination. They ask: what is the country of destination and what is the policy environment of that country? They then adjust the cost of the goods to account for the policy environment of that country.

26 *GATT 1994* art II(1).

27 Ibid art II(2)(a).

28 Low, Marceau and Reinaud, above n 12, 8, quoting *GATT 1994* art II(2)(a).

29 *GATT 1994* art VI(4); *SCM Agreement* annex I ('*Illustrative List of Export Subsidies*') paras (g)–(h). Furthermore, the *Border Adjustments Report* 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': *Border Adjustments Report*, GATT Doc L/3464, [10].

SCM Agreement.[30] The *SCM Agreement* provides countries with the right to rebate 'indirect'[31] domestic taxes, such as a carbon tax, paid by domestic producers of goods that are exported.[32] A carbon tax would likely qualify as an indirect tax within the meaning of the *SCM Agreement* because it falls within the category of a tax that is 'other than a direct tax'.[33]

Most importantly, para (g) of annex I to the *SCM Agreement* permits a broader range of domestic policy measures to be adjusted on export than are permitted on the import-side. The import-side rules, as discussed above, do not allow countries to make fiscal adjustments relating to 'product and process measures'. By contrast, under the *SCM Agreement* that governs 'indirect taxes' incurred 'in respect of the production and distribution of exported products',[34] Pauwelyn has noted that export-side border adjustments 'could arguably cover process or production-related taxes'.[35] The implications of this are discussed further in Part II(A)(3) below. Paragraph (h) of annex I to the *SCM Agreement* explicitly permits border adjustment upon exportation of a certain type of indirect tax (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 'energy, fuels and oil used in the production process'.[36]

The operational implications of allowing a broader range of policies to fall within the scope of export-side border adjustment are subtle but extremely important in designing climate policies. Thus, this incongruity between the import and export-side rules effectively permits exporting countries considerable flexibility to implement and adjust for innovative climate policies that may not necessarily conform with the more restrictive fiscally-oriented character of the import-side measures.

3 *Product v Process*

As noted above, the WTO rules are directed at a 'product level' analysis of 'likeness' rather than 'process'. This important distinction has led several commentators to assert that border adjustments are not an appropriate policy mechanism to be used in conjunction with carbon taxes or the requirement to purchase emission permits. This argument is based on the GATT Panel decision

30 *SCM Agreement* art 3.1. See generally Feaver, McGoldrick and Boyd-Wells, above n 4. See also *GATT 1994* annex I ('*Notes and Supplementary Provisions*') ad art XVI (which provides that '[t]he exemption of an exported product from duties or taxes borne by the like product when destined for domestic consumption, or the remission of such duties or taxes in amounts not in excess of those which have accrued, shall not be deemed to be a subsidy').

31 According to the *SCM Agreement*, the term 'indirect tax' is defined as 'sales, excise, turnover, value added, franchise, stamp, transfer, inventory and equipment taxes, border taxes and all taxes other than direct taxes and import charges': *Illustrative List of Export Subsidies* paras (g)–(h) n 58.

32 See generally Ton Manders and Paul Veenendaal, *Border Tax Adjustments and the EU-ETS: A Quantitative Assessment* (CPB Netherlands Bureau for Economic Policy Analysis, 2008).

33 In contrast, it can be noted that the term 'direct taxes' is defined as 'taxes on wages, profits, interests, rents, royalties, and all other forms of income, and taxes on the ownership of real property': *Illustrative List of Export Subsidies* para (e) n 58.

34 Ibid para (g).

35 Pauwelyn, above n 7, 20 n 52.

36 *Illustrative List of Export Subsidies* para (h); *SCM Agreement* annex II ('*Guidelines on Consumption of Inputs in the Production Process*') 264 n 61.

in *United States — Restrictions on Imports of Tuna* ('*US — Tuna*').[37] In that case, the Panel determined that the United States could not restrict tuna imports from certain countries based on the method by which the tuna was caught. Discriminating against imports based on their method of production was viewed as a violation of art III of the *GATT 1994*.[38]

In citing *US — Tuna*, critics of border adjustments argue that carbon taxes are a tax on fossil fuels used in the 'process' of producing goods.[39] They argue that because fossil fuels are spent in the manufacturing process and are not manifest in the physical characteristics of a good, a carbon tax is, in effect, a tax on a 'process' not a tax on a product.[40] Hence, they argue that imposing a border tax to offset a domestic carbon tax is not likely to be permitted under the WTO rules.[41] However, this argument confuses concepts surrounding 'methods of production' with the concepts relating to 'inputs used in the production process', as previously discussed. Taking an even stronger position, Howse and Regan assert that 'there is no real support in the text or jurisprudence of the *GATT* for the product/process distinction'.[42]

Although there is no WTO case law determining whether a carbon tax is a 'product' or a 'process' related tax and thereby clarifying whether it may be offset using border adjustments, several related cases do shed some light on how a dispute settlement panel may characterise a carbon tax. A tax on fossil fuels used as an 'input' in the production process is analogous to a tax on chemicals used as an input in the production of chemical derivative products, which was the focus of analysis in *United States — Taxes on Petroleum and Certain Imported Substance* ('*US — Superfund*').[43] In *US — Superfund*, the Panel determined that taxes on 'chemicals used as materials in the manufacture or production of the imported substance[s]' might be taken into account when imposing border tax adjustments on imported like products.[44] Hence, a carbon tax is not likely to be a tax on production processes and is more likely to qualify as a tax on an input used in the production of a good.

37 GATT Panel Report, *United States — Restrictions on Imports of Tuna*, GATT Doc DS21/R (3 September 1991, unadopted) GATT BISD 39S/155 ('*US — Tuna*').

38 The GATT Panel report on the *US — Tuna* case is often cited in support of this proposition: see, eg, Steve Charnovitz, 'The Law of Environmental "PPMs" in the WTO: Debunking the Myth of Illegality' (2002) 27 *Yale Journal of International Law* 59, 60, 87. However, as explained in Part II(A)(3), that is not quite what the GATT Panel held: GATT Panel Report, *US — Tuna*, GATT Doc DS21/R, [5.13].

39 See, eg, Jason Potts, *The Legality of PPMs under the GATT: Challenges and Opportunities for Sustainable Trade Policy* (International Institute for Sustainable Development, 2008) 11–14.

40 Ibid.

41 Sandford E Gaines, 'Processes and Production Methods: How to Produce Sound Policy for Environmental PPM-Based Trade Measures?' (2002) 27 *Columbia Journal of Environmental Law* 383, 385.

42 Robert Howse and Donald Regan, 'The Product/Process Distinction — An Illusory Basis for Disciplining "Unilateralism" in Trade Policy' (2000) 11 *European Journal of International Law* 249, 249.

43 GATT Panel Report, *United States — Taxes on Petroleum and Certain Imported Substances*, GATT Doc L/6175 (5 June 1987, adopted 17 June 1987) GATT BISD 34S/136, [2.5], [5.2.4] ('*US — Superfund*').

44 Ibid.

B *Operational Characteristics of Border Adjustments*

When applying border adjustments in the context of coherent climate policy design, it is helpful to recall that the adjustments can be applied as a two-sided policy mechanism to promote trade neutrality.[45] A two-sided approach differs from the conventional view that border adjustments are discrete, unrelated import taxes or export rebates (in much the same way that value-added taxes ('VAT') are implemented).[46] This two-sided conceptualisation, however, is at odds with the tendency of policymakers to direct attention towards the import-side of the measures and to ignore the export-side.[47] In addition, just as it is analytically unhelpful to conceptualise the incomplete use of border adjustments, it is similarly unhelpful to conceptualise the use of border adjustments by one country in isolation from their use by other countries. A more holistic understanding of border adjustments provides a basis for coherent policy design addressing both import-side domestic competitiveness along with export-side international competitiveness and carbon leakage concerns where (as will be discussed in Part III(C)) policy aspects relating to one side will have a bearing in relation to settings on the other.[48]

A simplified representation of how border adjustments can be used to offset product price differences caused by a carbon tax is illustrated in Figure One below. If, for example, Country A decides to implement a national carbon tax, that tax is deemed to be an 'origin-based tax'[49] levied upon fossil fuels used in the production of domestic goods within Country A.

Those costs will certainly be passed through to the consumer and the price of the good will increase in proportion to the energy intensity of the production process of a good. Imported goods that are not subject to a carbon tax in their home country will, as a consequence, have a price advantage vis-a-vis the domestic good. In theory, Country A may choose to impose a border adjustment (ie, impose a border tax) on imported goods based either on a calculation of the

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45 Two classic articles examining the trade neutrality of a proper implementation of value-added taxes are Harry Johnson and Mel Krauss, 'Border Taxes, Border Tax Adjustments, Comparative Advantage, and the Balance of Payments' (1970) 3 *Canadian Journal of Economics* 595; Gene M Grossman, 'Border Tax Adjustments: Do They Distort Trade?' (1980) 10 *Journal of International Economics* 117.

46 See Biermann and Brohm, above n 19, 298:

> One approach to manage the problem … could be to use an energy-added tax method, similar to invoice methods for value-added tax that are used in many countries throughout Europe: a tax imposed on fuels, or embodied in the electricity used in the production process, could be recorded on the invoice (like a value-added tax) that the domestic manufacturer presents after export of the product to tax authorities for rebate. To avoid unmanageable administrative burdens, one could refrain from such border adjustments when the tax is only a trivial percentage of the product price.

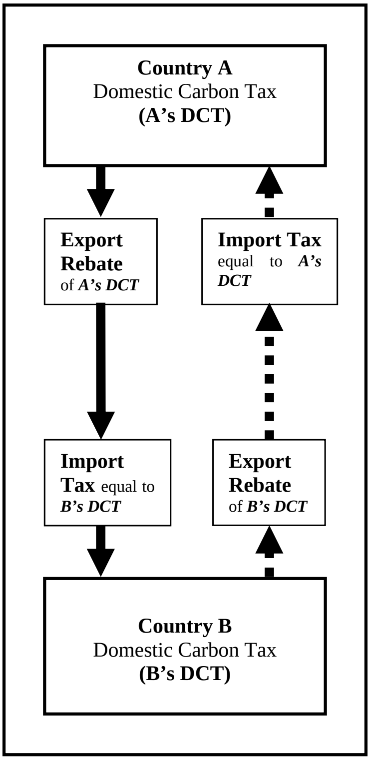
47 Border adjustments are frequently discussed only in relation to the import-side of the policy mechanism: see, eg, Reinhard Quick, 'Trade and Climate Change' (Powerpoint presented at the Bonn Climate Change Conference, Bonn, Germany, 9 June 2008) slide 3 <http://regserver.unfccc.int/seors/reports/archive.html?session_id=SB28> (in which Quick specifically states that border adjustments are only applied to imports without mentioning the notion of export rebates).

48 Biermann and Brohm, above n 19, 291.

49 Lawrence H Goulder, 'Carbon Tax Design and US Industry Performance' in James M Porteba (ed), *Tax Policy and the Economy* (MIT Press, 1992) vol 6, 59, 65.

imported good's carbon intensity or based on equivalent price effects on domestically produced goods subject to a carbon tax.[50] Unlike a border tax, which is deemed to be a destination-based tax on goods that are imported into Country A and 'destined' for consumption within that country,[51] the origin-based carbon tax is levied on the domestic producer where the good originates. Stated another way, border adjustments are destination-based taxes and regulations (or rebates as discussed below) that are applied to imported goods in response to origin-based taxes or policies. Accordingly, a border adjustment that is applied to goods destined to be consumed within a country, provide a price adjustment in an amount that reflects the costs that the domestic carbon policy of the importing country would impose on that good.

Figure One



50 This approach raises complex legal questions that are addressed in Part III(C).

51 Goulder, above n 49, 65.

So far, the discussion has only addressed half of the border adjustment — that of import competitiveness. The other half of the measure, which is frequently overlooked in the climate policy debate, deals with the issues of export competitiveness and carbon leakage. As illustrated in Figure One, indirect origin taxes — such as a carbon tax — imposed within Country A may be rebated back to domestic producers when a domestic product is exported (or imported products re-exported). The rebate reduces the export price, thus enhancing the competitiveness of such domestic products in international markets by removing the negative cost effects of the carbon tax. The rebate allows the export price to be as competitive in international markets as it would have been without the tax by reflecting only costs plus profits (ie, products without tax or other policy mechanisms).[52]

The operational aspects of border adjustments become more complex if, in a two-country trading relationship, both Country A and Country B tax carbon. The popular logic is that border adjustments will not need to be applied and goods can move freely between the two countries.[53] However, that logic only applies if both countries have identical or similar domestic schemes (ie, the size of the carbon tax is roughly equal). The reality is that each country will adopt its own unique climate policy that will ultimately have different cost impacts on its domestic products. For example, European countries have implemented an emissions trading scheme, whereas Australia has implemented a carbon tax. Therefore, even in the presence of domestic climate policies, some form of border adjustment will need to take place to adjust for different policies.[54] More specifically, where policy differences result in different levels of taxation, those differences will have to be adjusted irrespective of whether both countries tax carbon.

A simple way to deal with climate policy differences in the absence of global climate policy harmonisation is to adjust *all* imports and rebate *all* exports of products subject to a carbon tax (in the same way a VAT operates). If this occurs, exports enter international markets stripped of a carbon tax and are subsequently adjusted upon entry into the destination market. The economic rationale, according to Pauwelyn, can be expressed thus:

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52 Martin Feldstein and Paul Krugman, ‘International Trade Effects of Value-Added Taxation’ in Assaf Razin and Joel Slemrod (eds), *Taxation in the Global Economy* (University of Chicago Press, 1990) 263, 264.

53 John Stephenson and Simon Upton, ‘Competitiveness, Leakage, and Border Adjustment: Climate Policy Distractions’ (Paper presented at Round Table on Sustainable Development, Organisation of Economic Co-Operation and Development, Singapore, 22–23 July 2009) [17].

54 Like the *Package*, the EU Emissions Trading Scheme (‘ETS’) does not include a border adjustment mechanism. Nevertheless, *EU Directive 2008/101/EC*, which broadens the scope of the EU ETS to now include aviation, does provide an ‘exemption’ for airlines departing from countries that have implemented ‘equivalent measures’: *Directive 2008/101/EC of the European Parliament and of the Council of 19 November 2008 Amending Directive 2003/87/EC so as to Include Aviation Activities in the Scheme for Greenhouse Gas Emission Allowance Trading within the Community* [2009] OJ L 8/3. It should be noted, however, that such an exemption should not be regarded as a border adjustment — rather, an exemption is an alternative policy approach to avoid double taxation: see *Air Transport Association of America v Secretary of State for Energy and Climate Change* (Court of Justice of the European Communities, C-366/10, 21 December 2011). See also Lorand Bartels, ‘The WTO Legality of the Application of the EU’s Emission Trading System to Aviation’ (2012) 23 *European Journal of International Law* 429.

> 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 favorable tax regime in their country of origin).[55]

The distinction also finds some support in the economic theory that product taxes such as carbon taxes are shifted forward and affect consumer prices, whereas producer taxes (such as taxes on profits) are not passed on affecting the price of a product.[56] Thus, on this view, it is perfectly reasonable to distinguish between product and producer taxes and, further, as producer taxes do not influence product prices and do not affect the competitiveness of products, there is no need to make adjustments for imports on a producer basis.

III Applying Border Adjustments to Climate Change Policies

Several researchers have identified how the border adjustment debate seems to be occurring at two levels: either directed at the more specific 'product' level or at the more abstract 'policy' level.[57] The debate has become sufficiently conflated between these two levels that a serious disconnect has developed between how border adjustments are politically portrayed on the one hand and how they must be designed and applied to conform to international legal obligations on the other. In accepting the proposition that border adjustments are an imperfect solution to an exceedingly complex problem, a better understanding of their conceptual and legal characteristics provides insight into the extent that this technical mechanism can be used to complement domestic climate policies. It also provides a foundation upon which some of the more contentious aspects of the border adjustment/climate change debate can be framed more precisely.

In the Sections below, several aspects of the political debate surrounding border adjustments are examined and discussed in relation to the international rules. Once the legal requirements are separated from political debate, a clearer picture of the strengths and weaknesses of border adjustments as a policy measure complementing climate policies begins to emerge. That background provides critical information for determining an appropriate design.

A *The Unit of Analysis Problem*

As mentioned above, a great deal of political friction and confusion surrounding the use of border adjustments arises when national policymakers discuss the potential design and application of border adjustments. They often do so in a manner that does not accord with WTO rules. A major source of this friction stems from what can best be described as a 'unit of analysis' problem. The unit of analysis problem arises when political opponents ignore or misunderstand legal definitions in order to achieve their own political objectives.

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55 Pauwelyn, above n 7, 18 (emphasis in original) (citations omitted).

56 See generally Mihir A Desai and James R Hines Jr, 'Value-Added Taxes and International Trade: The Evidence' (Paper presented at Tax Systems and Trade, Urban-Brookings Tax Policy Centre, Brookings Institution, Washington DC, 9 December 2002) 2.

57 See, eg, Eckersley, above n 3.

A good example of this misuse or misunderstanding is the oft-mooted proposal of using border measures against 'countries' that do not have an official explicit carbon price.[58] The proposal is flawed in several respects. As noted above, art II(2)(a) of the *GATT 1994* provides that border adjustments can only be imposed in respect of 'like domestic product[s]' not 'countr[ies]' and only as a 'charge' equivalent to an 'internal tax'.[59] Yet the proposition put forward above substitutes the words 'carbon price' and 'countries' without an explicit carbon price for the words 'internal tax' and 'like domestic product' contained in art II(2)(a). This substitution is tantamount to a political rewriting of art II that forces it to say something it clearly does not.

There are several problems with this political rewriting, not least of which is that border adjustments begin to resemble a protectionist tariff as opposed to a domestic tax and so play into the hands of politicians. First, the words 'carbon price' cannot be substituted for the words 'internal tax'. The former arises, as will be explained further below, as a policy outcome whereas the latter is a *policy device* that generates a *policy outcome*. The two are not within the same class or unit of analysis; they are different units and serve different purposes. Secondly, although a national carbon price may correspond to a domestic carbon tax, the calculation and measurement of a national carbon price can be a complex exercise. This complexity arises because, depending on the definition of carbon price, it may be an aggregate value generated by a combination of climate policy-related fiscal measures.[60]

Using art II as a point of reference, a further unit of analysis problem arises when arguments are made that are politically unhelpful and technically inaccurate when the word 'country' is substituted for the words 'like domestic product'. A country is a much higher order political unit whereas a product is an economic unit of a much lower order. Clearly the two are not commensurable. Further, the object of art II(2) is to regulate fiscal differences between products, not countries — a distinction discussed further below. Finally, given the complexity of carbon pricing, a matter to which the paper turns next, if a country were to design border adjustments to offset a 'carbon price', it is highly likely that such a measure would be challenged under the WTO dispute provisions. It is also likely that a WTO dispute settlement Panel would find against the use of the carbon price as an appropriate unit of analysis.[61]

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58 For the purposes of this analysis, the question of whether a country has an explicit carbon price is determined by whether that country has imposed a national carbon tax or an emissions trading scheme.

59 *GATT 1994* art II(2)(a).

60 There are several different definitions of carbon price: explicit, effective, shadow and implicit. It is not necessary for the purposes of this paper to incorporate the concepts of an effective or shadow carbon price into the analysis. For definitions, see Centre for International Economics, 'Comparing Effective Carbon Prices: Methodological Issues' (Report, December 2010).

61 In the WTO Panel Report, *Mexico — Tax Measures on Soft Drinks and Other Beverages*, the need for a 'nexus' between the tax and the products it affects is identified: Panel Report, *Mexico — Tax Measures on Soft Drinks and Other Beverages*, WTO Doc WT/DS308/R (7 October 2005) [8.42]–[8.45]. The Panel found that *GATT 1994* art III(2) 'requires some connection, even if indirect, between the respective internal taxes or other internal charges, on the one hand, and the taxed product, on the other': at [8.42]. This has the effect of establishing the nexus between these 'units of analysis' as a legal requirement.

1 *Adjusting for Carbon Tax or Carbon Price?*

As mentioned above, one source of confusion is using the term 'carbon price' as the unit of analysis. In addition to the legal issues noted above — ie, that border adjustments are designed to address only a tax — the use of 'carbon price' is problematic in several other respects. A carbon price, defined in simple terms, is the 'cost' of producing CO_2 emissions.[62] In the absence of national climate policies that impose a cost on carbon, CO_2 emissions are nothing more than a 'negative externality' — free discharge into the environment, a discharge having no price attached.[63] A carbon price is a price generated by climate policies and attached to CO_2 emissions.

Carbon prices may be explicit as well as implicit. An explicit carbon price arises from the imposition of a carbon tax or the implementation of an emissions trading scheme whereby emissions permits are purchased and traded by carbon emitters. An implicit carbon price may be generated as a result of climate change mitigation subsidies, a cost paid by government to producers to switch to lower carbon-producing technologies or by other regulatory measures such as feed-in tariffs, minimum obligations for renewable energy generation or product labelling requirements.[64] As a result, some countries may have an explicit carbon price whilst others may have an implicit national carbon price as a result of implementing mitigation policies other than a carbon tax or emissions trading scheme.

This distinction between explicit and implicit carbon prices is important as different prices have a diverse range of policy implications that go on to affect the design and use of border adjustments.[65] For example, as art II(2)(a) only permits the offsetting of a 'charge equivalent to an internal tax', policy measures that generate an implicit carbon price are unlikely to fall within its scope. As a further example, neither a subsidy nor a feed-in tariff would qualify as 'a charge equivalent to an internal tax'.[66] Additional complexity arises where countries implement a combination of climate policies that have the effect of generating both explicit and implicit carbon prices which, together, generate an 'effective' carbon price. While politicians may wish to use border adjustments to offset the full effects of an effective carbon price to address the concerns of constituents, it

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62 The question arises as to how that cost should be calculated — ie, in real terms as determined by the monetary costs associated with a carbon tax or in relation to the social costs of CO_2 emissions: see, eg, David Pearce, 'The Social Cost of Carbon and Its Policy Implications' (2003) 19 *Oxford Review of Economic Policy* 362.

63 Nicholas Stern, *The Economics of Climate Change: The Stern Review* (Cambridge University Press, 2007) 27.

64 See Akira Yokoyama, Kazuhiro Ueta and Kiyoshi Fujikawa, 'Green Tax Reform: Converting Implicit Carbon Taxes to Pure Carbon Tax' (2000) 3 *Environmental Economics and Policy Studies* 1, 2. See generally Peter Hoeller and Markku Wallin, 'Energy Prices, Taxes and Carbon Dioxide Emissions' (Working Paper No 106, OCDE/GD (91)154, Economics and Statistics Department, Organisation for Economic Development and Co-Operation, 1991).

65 For the purposes of this paper, the term 'carbon price' will be used in a reductionist sense to mean the aggregate of all domestic climate change policies and taxes that might flow from the implementation of climate change policies. For a recent example of the use of the carbon price in this way, see Frank Convery, Denny Ellerman and Christian de Perthuis, 'The European Carbon Market in Action: Lessons from the First Trading Period' (2008) 5 *Journal for European Environmental & Planning Law* 215.

66 Centre for International Economics, above n 60, 11.

is clear that the rules are more narrowly framed and only permit offsetting an explicit carbon price — if indeed, offsetting a price is permitted at all, a matter to which we turn next.[67]

2 *Disassembling the Carbon Price*

A further problem associated with 'carbon price' as a unit of analysis arises in relation to border adjustments. As mentioned above, an explicit carbon price may be generated through a combination of climate policies that place a cost on CO_2 emissions. Where this is the case, because art II(2)(a) provides that a border adjustment is a 'charge equivalent to an internal tax', any border adjustment implemented to offset an explicit carbon price would have to be designed ensuring that the carbon price is disassembled into its separate fiscal components. In other words, to be consistent with art II(2)(a), the border adjustment of an explicit carbon price may require more than one border adjusted 'charge equivalent to an internal tax' to be levied upon imported products.

If a border adjustment is implemented in the form of a single aggregated tax to offset a carbon price generated from a combination of more than one climate policy, the measure will be more like a protectionist tariff than a border adjustment and, as a result, fall afoul of the WTO rules. The reason for this is that the border adjustment would be of a magnitude that would exceed any single one of the fiscal measures that it is designed to offset. Hence, in the absence of a correspondence between the border adjustment and any single fiscal measure it is intended to offset, the border adjustment would likely be challenged successfully under art III(1) and (2).[68] Article III(1) provides that taxes and laws affecting sale and purchase 'should not be applied to imported or domestic products so as to afford protection to domestic production'.[69] As explained in *Japan — Taxes on Alcoholic Beverages*, the WTO Appellate Body acknowledged that

> [a]rticle III:1 … 'contains general principles', and Article III:2 … 'provides for specific obligations regarding internal taxes and internal charges'. Article III:1 articulates a general principle that internal measures should not be applied so as to afford protection to domestic production. This general principle informs the rest of Article III. The purpose of Article III:1 is to establish this general principle as a guide to understanding and interpreting the specific obligations contained in Article III:2 and in the other paragraphs of Article III …[70]

As such, art III(2) provides that

> [t]he products of the territory of any contracting party imported into the territory of any other contracting party shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products.[71]

Given that a tax equivalent to the aggregate national carbon price would exceed any one of the domestic taxes, which comprise the aggregate carbon

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67 Grossman, above n 45, 126.

68 *GATT 1994* art III(1)–(2).

69 Ibid art III(1).

70 Appellate Body Report, *Japan — Taxes on Alcoholic Beverages*, WTO Doc WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R, AB-1996-2 (4 October 1996) 18 (citations omitted).

71 *GATT 1994* art III(2).

price, a border adjustment measure equivalent to the explicit carbon price would violate art III(2).[72]

Finally, the debate on the use of border adjustments assumes that the only indicator of effort to reduce emissions is an imposed explicit carbon price established through either an emissions trading scheme or a carbon tax. While an explicit price is obvious and important, it is not the only indicator. Other policies, such as subsidies, feed-in tariffs or minimum obligations for renewable energy generation, are also relevant. To determine the extent to which countries are establishing robust emissions policies — and hence already moving towards a low-carbon economy — all of these policies need to be considered. This important line of enquiry relating to other mitigation measures, however, falls almost entirely outside the scope of the rules examined in this paper. To the extent that it runs parallel, the notion of an implicit carbon price generated by more ubiquitous climate policy choices should either form the basis of any international renegotiation of the border adjustment rules or should be avoided by countries as a potential climate policy device.

B *Selective Targeting: Ignoring the Rules*

The mistaken effort noted above to 'selectively target' imports from countries that do not have equivalent measures is exemplified by US and European Union efforts and proposals.[73] The idea behind a selective application of border adjustments is that they would be imposed against '*countries*' that do not have an official and explicit carbon price.[74] This proposal, as mentioned previously, recommends a levy against products coming from a '*country*' instead of against '*products*'. Such a rewriting of art II(2)(a) to target countries is a clear violation of the art I Most Favoured Nation ('MFN') obligations. We now turn to consider how this article works.

1 *The General Rule: Art I — Most Favoured Nation*

Proposals that selectively target products imported from countries yet to implement a climate policy — ie, one that does not generate an explicit carbon price by means of a carbon tax — are, on their face, likely to violate *GATT 1994* art I. As a consequence, any such proposals would be considered a violation of the MFN obligation. The MFN obligation contained in art I(1) stipulates that

> any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties.[75]

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[72] Robert E Hudec, '"Like Product": The Differences in Meaning in *GATT* Articles I and III' in Thomas Cottier and Petros C Mavroidis (eds), *Regulatory Barriers and the Principle of Non-Discrimination in World Trade Law* (University of Michigan Press, 2000) 101, 104.

[73] Cosbey, above n 14, 3.

[74] Whether a country has an explicit carbon price is largely determined by whether that country has imposed a national carbon tax or an emissions trading scheme.

[75] *GATT 1994* art I(1). The scope of art I(1) is further defined to include 'all matters referred to in paragraphs 2 and 4 of Article III'.

As a core principle of the WTO regime, art I(1) has been the subject of much scrutiny by WTO dispute settlement panels. The article has two dimensions: first, it has been interpreted to mean that WTO member countries cannot impose internal measures in the form of taxes or charges that discriminate between foreign and domestic producers. Secondly, and more importantly for the purposes of this analysis, WTO member countries cannot impose internal taxes and charges that discriminate or treat imports from individual countries differently. Stated another way, art I(1) forbids WTO member countries, all of whom have MFN status, from discriminating between producers and their goods on the basis their country of origin — ie, countries which by membership in the WTO have MFN status.

The general scope of art I(1) was set out by the Appellate Body in *Canada — Certain Measures Affecting the Automotive Industry* ('*Canada — Autos*').[76] The Appellate Body reviewed the Panel's finding that Canadian import duty exemptions granted on motor vehicles exported from certain countries were inconsistent with art I(1).[77] The Appellate Body, which distinguished between de jure and de facto discrimination, found that both fell within the scope of the article. In doing so, the Appellate Body stated:

> In approaching this question, we observe first that the words of Article I:1 do not restrict its scope only to cases in which the failure to accord an 'advantage' to like products of all other Members appears *on the face* of the measure, or can be demonstrated on the basis of the words of the measure. Neither the words 'de jure' nor 'de facto' appear in Article I:1. Nevertheless, we observe that Article I:1 does not cover only 'in law', or de jure, discrimination. As several GATT Panel reports confirmed, Article I:1 covers also 'in fact', or de facto, discrimination. Like the Panel, we cannot accept Canada's argument that Article I:1 does not apply to measures which, on their face, are 'origin neutral'.[78]

The notion of granting an 'advantage' is central to the issues created by selectively targeting products of countries on the basis of the latter's climate policies. The Appellate Body touched on the term '*any advantage* … granted by any Member to *any product*'[79] in *Canada — Autos*, noting that

> [t]he words of Article I:1 refer not to *some* advantages granted 'with respect to' the subjects that fall within the defined scope of the Article, but to '*any advantage*'; not to *some* products, but to '*any product*'; and not to like products from *some* other Members, but to like products originating in or destined for '*all other*' Members.[80]

Further, in *Indonesia — Certain Measures Affecting the Automobile Industry*, the Panel explicitly held that advantages 'cannot be made conditional on any criteri[on] that is not related to the imported product itself'.[81] As Veel notes:

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76 Appellate Body Report, *Canada — Certain Measures Affecting the Automotive Industry*, WTO Doc WT/DS139/AB/R, WT/DS142/AB/R, AB-2000-2 (31 May 2000) [78] ('*Canada — Autos*').

77 Ibid.

78 Ibid (emphasis in original).

79 Ibid [79] (emphasis in original), citing *GATT 1994* art I(1).

80 Ibid (emphasis in original).

81 Panel Report, *Indonesia — Certain Measures Affecting the Automobile Industry*, WTO Doc WT/DS54/R, WT/DS55/R, WT/DS59/R, WT/DS64/R (2 July 1998) [14.143].

> While the mere presence of conditions attaching to the grant of some benefit may not violate Article I:1, a condition that discriminates as between different countries will violate the MFN principle. Even measures which are facially neutral between countries of origin may be found to violate Article I:1 if they result in a discriminatory impact as between countries.[82]

The effect of a selective targeting of only those imports originating from countries without policies that generate an explicit carbon price using a border adjustment has the effect of granting an advantage to those countries whose policies generate an explicit carbon price. The inequity arises in two contexts. First, a country may have an implicit carbon price, not an explicit one. The unfairness in this context arises because a country's policy choice to make a carbon price implicit should not prejudice its products on the international market. To allow such selective targeting is clear discrimination against the producers of a country that produces goods in such a policy environment and a clear violation of that country's MFN rights. Secondly, it discriminates against MFN countries which have decided against implementing a carbon policy.

Consider, for example, if Australia were to grant free access to products imported from Europe which are subject to CO_2 emission taxes, but were to impose a border adjustment on like Chinese products which are not subject to emissions taxes, Australia would be in violation of its art I(1) obligation to 'immediately and unconditionally' accord MFN status to the Chinese like products.[83] Examining this hypothetical case in greater depth leads to further concerns. First, the policy assumes that countries that do not impose climate policies that generate an explicit carbon price are not taking any climate action at all. By contrast, one recent report suggests, for example, that China's climate policies generate an implicit carbon price resulting in a national carbon price that exceeds that of most Western countries.[84] Secondly, the policy of selective targeting can result in absurd policy outcomes. For example, a European good produced for export should, under a properly designed scheme, be eligible for a rebate of European climate taxes.[85] Accordingly, the European good will enter the international market stripped of any European carbon taxes. As a result, if Australia were to selectively target Chinese imports but grant free access to

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[82] Paul-Erik Veel, 'Carbon Tariffs and the WTO: An Evaluation of Feasible Policies' (2009) 12 *Journal of International Economic Law* 749, 785 (citations omitted).

[83] WTO jurisprudence has used the following four criteria to determine comparability:

(i) physical characteristics of the product;
(ii) end-use;
(iii) consumer tastes and habits; and
(iv) tariff classification of the product:

Appellate Body Report, *European Communities — Measures Affecting Asbestos and Asbestos-Containing Products*, WTO Doc WT/DS135/AB/R, AB-2000-1 (12 March 2001) [85] ('*EC — Asbestos*'). 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): Pauwelyn, above n 7, 29 n 80.

[84] Vivid Economics, 'The Implicit Price of Carbon in the Electricity Sector of Six Major Economies' (Report, October 2010) 24–43 <http://www.vivideconomics.com/docs/Vivid%20Econ%20Implicit%20Carbon%20Prices.pdf>.

[85] This example is premised on the argument that under a properly designed scheme, climate taxes paid on EU products would be eligible for a rebate. It should be noted that this example is hypothetical because the EU ETS does not contain a rebate scheme.

European imports, the European imports would enter the Australian market climate tax free and enjoy a competitive advantage over the domestic like goods. Further, the Chinese goods, which have an implicit carbon price embedded within their overall price, are then taxed again by way of the border adjustment for products coming from countries without explicit carbon prices.

2 *The Art XX Exception*

Despite the problems with legal and policy shortcomings, a strategy of selective targeting could potentially be saved under the *GATT 1994* rules. *GATT 1994* art XX provides a list of exceptions permitting WTO members to implement trade measures, such as border adjustments, that 'would otherwise be inconsistent with *GATT* obligations'.[86] The 'chapeau' of art XX states that, under certain circumstances, countries may adopt national policies that violate *GATT* obligations provided that 'such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination … or a disguised restriction on international trade'.[87] The two paragraphs of art XX that are most likely to provide exceptions applicable to national climate policies are paras (b) and (g). Article XX(b) refers to measures 'necessary to protect human, animal or plant life or health'.[88] Article XX(g) permits the implementation of measures 'relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption'.[89]

It is not clear which paragraph is most likely to apply. Indeed, in the broader context, Condon observes that 'jurisprudence on para XX(g) appears to make para XX(b) somewhat redundant'.[90] The prevailing view is that border adjustment schemes could, if designed properly, fall within the scope of either or both of these art XX exemptions. In either case, to comply with art XX, Houser et al note that a border adjustment must be 'closely tailored to achieve a legitimate policy objective (such as protecting the environment) [provided that the policy measure is designed] in a least trade restrictive manner'.[91] A broader view is taken by Trebilcock and Howse who suggest that a measure 'that was even-handed between imports and domestic [products] and focused appropriately on conservation goals, might well pass the test'.[92] In other words, a policy clearly aimed at protecting the natural environment which may result in discrimination against imports or necessitate a border adjustment may well fall within the permitted exemptions of art XX.

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86 Bradly J Condon, '*GATT* Article XX and Proximity-of-Interest: Determining the Subject Matter of Paragraphs B and G' (2004) 9 *UCLA Journal of International Law and Foreign Affairs* 137, 138.

87 *GATT 1994* art XX.

88 Ibid art XX(b).

89 Ibid art XX(g).

90 Condon, above n 86, 137.

91 Trevor Houser et al, *Leveling the Carbon Playing Field: International Competition and US Climate Policy Design* (Peterson Institute for International Economics, World Resources Institute, 2008) 31.

92 Michael J Trebilcock and Robert Howse, *The Regulation of International Trade* (Routledge, 3rd ed, 2005) 540.

Further, consistent with an earlier argument in this paper, a border adjustment designed to selectively target certain imports may not be as easily saved under art XX as suggested. A review of the jurisprudence and, in particular, the legal tests that must be satisfied suggests that a selective targeting of countries would be a violation of the *GATT 1994*. For example, under art XX(b), the test turns on whether the measure is 'necessary'. In defining 'necessary' in *European Communities — Measures Affecting Asbestos and Asbestos-Containing Products*, the Appellate Body reiterated a finding made in the earlier *Korea — Measures Affecting Imports of Fresh, Chilled and Frozen Beef* decision that '[t]he more vital or important [the] common interests or values are, the easier it would be to accept as necessary a measure designed as an enforcement instrument'.[93] Accordingly, the question could be phrased as whether a border adjustment scheme designed to be selective (and therefore impliedly punitive and less impliedly protectionist) is necessary. In all likelihood, given the punitive nature of the measure, the answer would be 'no' and the selective measure would be struck down on the grounds that a border adjustment designed in conformity with the WTO rules would achieve the same end without the discriminatory outcome.[94]

To design an adjustment that complies with art XX(g), three criteria must be satisfied:

> First, the resource to which the measure relates must be an exhaustible natural resource. Second, the measure must relate to the conservation of the exhaustible natural resource. Third, the measure must be made effective in conjunction with restrictions with domestic production or consumption.[95]

Although all criteria can be satisfied in the case of carbon tariffs, their permissibility ultimately turns on the tests set out in the 'chapeau' of art XX which prohibits measures that are 'applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination … or a disguised restriction on international trade'.[96] The Appellate Body provided a definition of these terms in *United States — Standards for Reformulated and Conventional Gasoline* in which it stated:

> the kinds of considerations pertinent in deciding whether the application of a particular measure amounts to 'arbitrary or unjustifiable discrimination', may also be taken into account in determining the presence of a 'disguised restriction' on international trade. The fundamental theme is to be found in the purpose and object of avoiding abuse or illegitimate use of the exceptions to substantive rules available in Article XX.[97]

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93 Appellate Body Report, *Korea — Measures Affecting Imports of Fresh, Chilled and Frozen Beef*, WTO Doc WT/DS161/AB/R, WT/DS169/AB/R, AB-2000-8 (11 December 2000) [162], cited in Appellate Body Report, *EC — Asbestos*, WTO Doc WT/DS135/AB/R, [172].

94 Donald H Regan, 'The Meaning of "Necessary" in *GATT* Article XX and *GATS* Article XIV: The Myth of Cost–Benefit Balancing' (2007) 6 *World Trade Review* 347, 354.

95 Veel, above n 82, 776.

96 *GATT 1994* art XX.

97 Appellate Body Report, *United States — Standards for Reformulated and Conventional Gasoline*, WTO Doc WT/DS2/AB/R, AB-1996-1 (29 April 1996) 25, citing *GATT 1994* art XX.

C *The Problem of Calculating the Adjustment*

A point of contention presented as being the most difficult in practical terms is how a 'charge' on imports, or rebate on exports, should be calculated and administered. The administrative challenges have not escaped the politics of the debate, with critics of climate policy asserting that it is impossible to implement an administratively feasible scheme capable of taxing (or rebating) the embedded carbon content of products.[98] Calculating the embedded carbon content of a product requires a detailed enquiry into the CO_2 emissions generated in all aspects of the sourcing, supply, processing, production, marketing and transport of the product. Although critics assert that there are 'no clear definitions or calculations as to the relevant … amounts which are to be used in such adjustments, or even how such calculations would be made',[99] a senior policy analyst within the World Customs Organization states that the 'reality is, however, that administering embodied carbon BTAs would be feasible'.[100]

The debate is unnecessarily complicated by two apparent problems. First, even though two products might be considered 'like-goods' within the meaning of arts II and III, their carbon content may differ substantially. That is, different producers of the same product may operate under different conditions using different production methods which have different carbon intensities.[101] In theory, the product with the higher embedded carbon content should attract a higher tax or be accorded a larger rebate than more efficiently produced products. Since the carbon intensity of imports originating in developing countries is frequently higher than like goods produced in developed countries, it is argued that any adjustment made should be based on a calculation of the imported good's embedded carbon content.

The problem with this approach is that it is likely to violate *GATT 1994* art II(2)(a) which requires that the border adjustment imposed on the imported good be 'a charge equivalent to an internal tax' levied upon the domestic like good.[102] The charge imposed upon the domestic good is, therefore, the reference standard against which any border adjustment must be calculated. The reference standard is not generated by an inquiry into the carbon intensity of production methods used in the country of origin.

It is evident that a border adjustment scheme could not be feasibly administered unless a trade-off between scientific accuracy and administrative expediency is made. It has been suggested elsewhere that a 'best available technology' ('BAT') standard applied to all producers for all like products 'would eliminate the need for estimating GHG emissions from individual plants'.[103] Ismer and Neuhoff also advocate a similar approach, asserting that it

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98 As asserted in *The Economist*, 'a carbon tariff … would be hard to implement. Customs officials would either have to assess the emissions embedded in imports, an impossibly complicated task, or make arbitrary assumptions, a recipe for a trade war': 'Emissions Suspicious: Are Countries that Regulate Greenhouse Gases Exposing Their Industries to Unfair Competition from Those that Do Not?', *The Economist* (London), 21 June 2008, 16.

99 Lockwood and Whalley, above n 8, 814.

100 Robert Ireland, 'Implications for Customs of Climate Change Mitigation and Adaptation Policy Options: A Preliminary Examination' (2010) 4(2) *World Customs Journal* 21, 27.

101 Houser et al, above n 91, 32.

102 *GATT 1994* art II(2)(a).

103 Stephenson and Upton, above n 53, [82].

would likely be WTO-compliant.[104] However, a significant problem with using a BAT standard is that imported products that are produced more cheaply using more carbon intensive technologies will enjoy a competitive advantage over domestically produced goods. Furthermore, the production and maintenance of the standard, leaving aside the political negotiation and acceptance of such a standard, makes it unlikely to ever eventuate.[105]

IV RESPONSE MEASURE ISSUES AND INTERNATIONAL OBLIGATIONS

It is unclear why the Australian Government did not include border adjustments in the design of its *Package*. However, one reason may be that it would have been aware of the strong opposition to the use of such measures from developing countries. Under the *UNFCCC* and the *Kyoto Protocol*, signatories are obligated to ensure that 'response measures' such as a carbon tax are designed such that they minimise unfavourable economic, social and environmental impacts on other parties, with specific emphasis on the potential adverse impacts on developing country parties.[106] Developing countries argue that the imposition of border adjustments to offset the negative effects of a carbon tax

> can significantly affect exports of countries targeted by the measures, thereby altering important sources of income and employment. Especially developing countries that are not prepared to take on comparable emission reductions, are concerned that their exports will be targeted and that their economic development will be challenged.[107]

Border adjustments imposed ancillary to a carbon tax fall within the scope of response measures and are subject to the broader obligation imposed under *UNFCCC* and *Kyoto Protocol* recognising the 'common but differentiated responsibilities' of all states.[108]

The multilateral response to balancing the competing policy objectives of safeguarding domestic economic performance, implementing climate policy and ensuring that the interests of developing countries are not compromised, has been to begin a dialogue examining the complexities associated with the implementation of response measures such as a carbon tax. It was decided at the 16th Conference of the Parties to the *UNFCCC* in Cancun that the Parties should create a forum 'tasked with developing a work programme to address these

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104 Ibid (citations omitted). Although it may result in an underestimate of GHG emissions for almost all plants and would eliminate any incentive on firms already at best available technology ('BAT') standard to further improve their emissions reduction technologies. Given the wide range of emissions intensities that may exist in the production of most products, a BAT factor would most likely have to be set at a very low rate, which would render it largely ineffective in controlling leakage and reducing competitiveness concerns.

105 Stéphanie Monjon and Philippe Quirion, 'How to Design a Border Adjustment for the European Union Emissions Trading System?' (2010) 38 *Energy Policy* 5199, 5204.

106 *Kyoto Protocol* art 2(3).

107 Global Platform on Climate Change, Trade and Sustainable Energy, International Centre for Trade and Sustainable Development, 'Submission on Information and Views relating to Modalities for the Operationalization of the Work Programme and a Possible Forum on Response Measures' (Submission, September 2011) 3.

108 Chistopher D Stone, 'Common But Differentiated Responsibilities in International Law' (2004) 98 *American Journal of International Law* 276, 279.

impacts'.[109] The forum has commenced work, however, has yet to present much in the way of guidance to assist countries to develop response measures that do not run afoul of the *UNFCCC* and *Kyoto Protocol* obligations.

In the absence of multilateral guidance on how to design response measures that do not negatively impact on developing country exports, nation-states are left to design regulatory responses that must take into account the nature of the organising problem. One way to contextualise the problem is to examine it within the context of the composition of Australia's international trade (by value) flows. An analysis of Australia's import flows indicates that the vast majority of imports originate from developed and newly industrialising countries, not developing countries. Indeed, the volume of imports from countries classified by the International Monetary Fund as 'developing' and so entitled to response measure relief amounts to less than 10 per cent of Australia's total imports by value. Given the relatively small volume of imports originating from these countries, it can be argued that designing a border adjustment scheme that exempts developing countries from a border adjustment would not undermine significantly the economic rationale underlying the imposition of the tax.

However, the question arises as to whether the design of a border adjustment scheme that exempts developing countries is contrary to the fundamental obligations of equal treatment and non-discrimination that are constituent principles of the WTO agreements — ie, the MFN status issue examined earlier. The answer to the question is quite straightforward: 'In 1979, the GATT Parties enacted the Enabling Clause to permit unilateral discriminatory trade preferences in favor of developing countries'.[110] The Enabling Clause is contained in *Ministerial Decision L/4903* para 1, which provides that notwithstanding 'the provisions of Article I of the *General Agreement*, contracting parties may accord differential and more favourable treatment to developing countries, without according such treatment to other contracting parties'.[111] In other words, such a response measure favouring developing countries would not run afoul of international obligations under the WTO.

The prevailing view among scholars is that the Enabling Clause provides developed countries with a broad exception: a view supported by the WTO Appellate Body decision in *European Communities — Conditions for the Granting of Tariff Preferences to Developing Countries* ('*EC — Tariff Preferences*').[112] In *EC — Tariff Preferences*, the Appellate Body confirmed that the Enabling Clause has been incorporated as part of the *GATT 1994* obligations and operates as an exception to the MFN obligation of art I(1).[113] Referring to

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[109] Global Platform on Climate Change, Trade and Sustainable Energy, International Centre for Trade and Sustainable Development, above n 107, 1.

[110] Steve Charnovitz, 'International Trade & Developing Countries' (2005) 29 *Fordham International Law Journal* 259, 260.

[111] *Differential and More Favourable Treatment Reciprocity and Fuller Participation of Developing Countries*, GATT Doc L/4903 (28 November 1979) (Decision) GATT BISD 24S/191, para 1 ('*Ministerial Decision L/4903*').

[112] Appellate Body Report, *European Communities — Conditions for the Granting of Tariff Preferences to Developing Countries*, WTO Doc WT/DS246/AB/R, AB-2004-1 (7 April 2004).

[113] Ibid [90].

United States — Measure Affecting Imports of Woven Wool Shirts and Blouses from India,[114] Islam and Alam note that the Appellate Body

> took into consideration the special nature of the Enabling Clause, which persuaded it to view that member states were encouraged to deviate from the MFN rule in granting 'differential and more favourable treatment for developing countries'.[115]

V Coherent Policy Design: Summary and Conclusions

This background provides the basis for a coherent policy design. Such a design would begin with a clear identification of the policy objectives. These objectives would be two-fold: to reduce climate change gases and to avoid negative economic impacts. The first objective could be achieved by the creation of a mechanism for creating the equivalent of an internal tax. The purpose of this equivalent is to incentivise producers to reduce the carbon emissions produced alongside production of the good.

It is assumed that this reduction in carbon intensity will be costly for producers. Accordingly, the concern is that implementing a fiscal measure would harm domestic producers not only because their goods will be more costly in the local market as compared to goods produced in non-policy environments, but also internationally because their goods must compete with international goods that are also free of such fiscal measures. In other words, domestic goods are challenged fiscally at the border by imports and when crossing the border into the international market. Coherent policy design connects both of these border points with domestic policy and with international obligations.

The border connection is the border adjustment mechanism designed more than a century ago. It allows an adjustment for imported goods destined for the domestic market as well as an adjustment for domestic goods destined for the international market. Therefore, coherently designed, the border adjustments can render a domestic policy neutral for domestic producers.

The specific characteristic of the equivalent of an internal tax could be politically determined. There is enough flexibility to call it a tax, a price or an emissions trading scheme. The main issue is that it would need to provide an identifiable, discrete tax, explicit carbon price or something similar to allow a border adjustment within the parameters of the WTO and provide an appropriate response measure for developing countries. Neither of these poses an insurmountable obstacle.

Even though discussion of border adjustments is only a small part of the larger climate change policy debate, the significant misunderstanding demonstrated by politicians and policy advisers suggests that greater care needs to be taken in informing policymakers about the nature of the mechanism. In particular, its linking of national policy initiatives within the domestic regulatory environment to the international market, its role in adjusting the impacts a

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114 Appellate Body Report, *United States — Measure Affecting Imports of Woven Wool Shirts and Blouses from India*, WTO Doc WT/DS33/AB/R, AB-1997-1 (25 April 1997).

115 Md Rizwanul Islam and Shawkat Alam, 'Preferential Trade Agreements and the Scope of *GATT* Article XXIV, *GATS* Article V and the Enabling Clause: An Appraisal of *GATT*/WTO Jurisprudence' (2009) 56 *Netherlands International Law Review* 1, 22 (citations omitted).

particular policy environment may have on goods produced subject to those policies, the technical restrictions such as its limited application to goods not countries, prices not taxes etc and its ability to avoid compromising international obligations with respect to developing countries' rights to response measures, needs to be brought to the forefront of the discussion.

Thus, the challenge of understanding how border adjustments could complement climate policy results because different issues requiring clarification arise in respect of their political, operational and legal implications. Rather than understanding border adjustments as a policy measure that is incidental to, or 'tacked-on' to, a climate policy measure such as a carbon tax or an emissions trading scheme, border adjustments should be considered an essential component of a coherent integrated policy framework. The purpose of this framework is to achieve the combined policy objectives of reducing harmful CO_2 emissions and minimising the negative economic impact of such policies on the competitiveness of domestic goods both within and beyond domestic markets. To restate the point: both the import and export-sides of border adjustments need to be considered in the policy equation.

A more integrated, coherent approach to climate policy design has several interesting policy effects. Not only does such an approach encourage the development of more transparent and administratively simple climate policy measures on the domestic front, but it also provides an interesting area of testing prior international law and policy experience. In this context, past experience with VATs could prove valuable. If all countries implementing climate policies were to use border adjustments in much the same way as countries with VATs currently use border adjustments, there would be substantially less need for countries to engage in the complex exercise of developing a suite of international rules to harmonise the trade-related aspects of climate policy.

Before a coherent suite of climate policies can be formulated, however, it is necessary to have a clear picture of what can be adjusted at the border under the WTO rules and what cannot. Confusion surrounding what is being adjusted at the border arises when unit of analysis discrepancies are introduced needlessly. The shifts from a 'charge' imposed upon a domestic product to a 'carbon price', and from 'product' to 'country' are both clear examples. Once this confusion in the current policy discussion is overcome, the focus can move to the creation of a coherent, VAT-like international regulatory scheme that simplifies and facilitates climate change through supporting border adjustments. Such a system will address the dual global objectives of reduced carbon emissions and protecting economic growth both domestically and internationally, making it easier for countries to adopt climate change policies and allowing politicians to turn their attention to other issues.