PART III:
CLIMATE CHANGE, TRADE, INVESTMENT AND REGIONAL INTEGRATION

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Climate, Trade and Investment Law in the Global Green Economy*

Markus W. Gehring & Jarrod Hepburn

Abstract

This article addresses the relationship between climate change, and trade and investment law. Although climate change may not have made its presence known directly in many international trade and investment disputes so far, it has already had effects on these two legal regimes in other ways. There is uncertainty over whether trade law and investment law are adequate to deal with the pressures and tensions that climate change engenders. However, this article presents some optimistic answers and ways forward, setting out possibilities for future enhancements of the two legal regimes to ensure that climate change is, and remains, a defeasible issue. Ultimately, the climate change era presents many challenges, but, on balance, there are even more opportunities to trade and investment law to provide a meaningful framework for global sustainable development.

A. Introduction

Combatting climate change and developing trade and investment are not supposed to have opposing aims. In the context of the global green economy, they are supposed to be mutually beneficial. As the global Rio+20 Declaration, *The Future We Want*, categorically states:

> We affirm that there are different approaches, visions, models and tools available to each country, in accordance with its national circumstances and priori-

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> ties, to achieve sustainable development in its three dimensions which is our overarching goal. In this regard, we consider green economy in the context of sustainable development and poverty eradication as one of the important tools available for achieving sustainable development and that it could provide options for policy making but should not be a rigid set of rules. We emphasise that it should contribute to eradicating poverty as well as sustained economic growth, enhancing social inclusion, improving human welfare and creating opportunities for employment and decent work for all, while maintaining the healthy functioning of the Earth's ecosystems.

This article focuses on two very important areas of international economic law. The first is trade law, covering primarily the legal instruments and jurisprudence of the World Trade Organisation (WTO) and its dispute settlement organs, and drawing also on developments in regional and bilateral trade agreements. The second is investment law, covering the texts of the extensive and growing network of bilateral and (some) regional investment treaties, and the interpretation of these treaties by the arbitral panels convened to hear disputes most often under the rules of the International Centre for Settlement of Investment Disputes (ICSID) or the United Nations Commission on International Trade Law (UNCITRAL).

Although, as Section 2 of this article discusses, climate change may not have made its presence known directly in many international trade and investment disputes so far, it has already had effects on these two legal regimes in other ways. The major issue that climate change poses for international trade and investment law is addressed extensively in Sections 3 and 4, respectively. Are these two legal regimes adequate, in their existing forms, to deal with the pressures and tensions that climate change engenders? The ultimate results of this debate are still being determined, as negotiators, policymakers, academics and tribunals continue to work through the issues that climate change has raised. However, Section 5 of this article presents some optimistic answers and ways forward, setting out possibilities for future enhancements of the two legal regimes to ensure that climate change is and remains a defeasible issue. Ultimately, the climate change era presents many challenges, but, on balance, there are even more opportunities to trade and investment law to provide a meaningful framework for global sustainable development.

B. Climate Change and Trade and Investment Dispute Settlement

There have been a handful of disputes in the WTO and investment law systems that are directly related to climate change measures. However, as discussed in this section, these disputes have not yet appeared to pose any fundamental challenges to the regimes. Although their existence highlights some of the common features of climate change measures, such as the fact that they often take the form of governmental subsidies to green industries, the application of the relevant rules in these cases may be largely analogous to their application in non-climate cases.

The major relevant case arising so far in the trade law system is the *Canada-FIT* dispute, and the WTO Panel's December 2012 ruling is discussed in detail here.[1] The dispute arose in September 2010, when Japan requested consultations with Canada within the WTO framework, complaining about measures that impose domestic content requirements on Ontario's renewable energy industries.[2] In August 2011 the European Union (EU) also requested consultations with Canada concerning the same measures.[3] The two disputes were adjudicated simultaneously before the same panel.[4]

The complaints brought by the EU and Japan relate to an Ontario scheme to provide guaranteed, long-term, favourable pricing for wind, solar, small hydro and biomass electricity producers, provided these producers purchase certain goods and services from local Ontario companies (Ontario feed-in tariff program, or Ontario FIT program). In a nutshell, the complainants raised two main arguments: First, it was argued that the scheme violates the national treatment rule, as stipulated in Article III(4) of the General Agreement on Tariffs and Trade (GATT) and in Articles 2.1 of the Agreement on

1 Note that the ruling of the WTO Appellate Body in the Canada-FIT case was released on 6 May 2013, after the substance of this article was finalised for publication.

2 *Canada – Certain Measures Affecting the Renewable Energy Sector* (Complaint by Japan), DS412, http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds412_e.htm, last accessed 14 March 2013.

3 *Canada – Measures Relating to the Feed-in Tariff Program* (Complaint by the EU), DS426, http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds426_e.htm, last accessed 14 March 2013.

4 *Canada – Certain Measures Affecting the Renewable Energy Sector* (Complaint by Japan); *Canada – Measures Relating to the Feed-in Tariff Program* (Complaint by the EU), 2012, WTO Doc. WT/DS412/R, WT/DS426/R, Panel Report, *(Canada FIT)*.

Trade-Related Investment Measures (TRIMs Agreement). Second, it was contended that the Ontario FIT program is in violation of Article 3.1(b) of the Agreement on Subsidies and Countervailing Measures (SCM Agreement), according to which subsidies that are contingent on the use of local content are prohibited.

In its recent ruling, the WTO Panel held that the Ontario FIT program was indeed inconsistent with the national treatment obligation. The Panel commenced by rejecting Canada's argument that Ontario's FIT program fell within the scope of Article III(8) of the GATT, which excludes certain governmental procurements from the GATT and the provisions of TRIMs on national treatment. The Panel emphasised that in order to fall within this exception, the governmental purchases must not be "with a view to commercial resale or with a view to use in the production of goods for commercial sale".[5] The Panel added in this respect that the electricity purchased by the government is resold to the public in competition with the private sector,[6] and with significant profits for the shareholders of the distributing companies.[7] The Panel concluded therefore that the resale of the electricity by the state is of a "commercial nature",[8] and accordingly that Ontario's FIT program is not covered by the "governmental procurement" exception.

The Panel continued its analysis by asking whether the "local content" requirement in the FIT program violates the national treatment rule. For this purpose, the Panel referred to the "Illustrative List" in the Annex of the TRIMs Agreement, which sets out the categories of measures that are deemed to be in violation of the national treatment provisions. According to paragraph 1(a) of this list, the situations that are inconsistent with the prohibition on national treatment include:[9]

> the purchase or use by an enterprise of products of domestic origin or from any domestic source, whether specified in terms of particular products, in terms of volume or value of products, or in terms of a proportion of volume or value of its local production.

In light of the conditions stipulated by the local content requirement of the Ontario FIT program, as well as the text of paragraph 1(a) of the Illustrative List, the Panel concluded that the FIT program's domestic content require-

5 Article III(8)(a) of the GATT; see *Canada FIT, supra* note 3, paras 7.139-7.154.
6 *Canada FIT, supra* note 3, para 7.147.
7 (ibid.:para 7.150).
8 (ibid.:para 7.151).
9 Para 1(a) of the Illustrative List, Annex to the TRIMS Agreement.

ment violated the national treatment provisions of both the GATT and the TRIMs.[10]

The second question examined by the Panel was whether the local content requirement of the Ontario FIT program is a prohibited subsidy, according to the SCM Agreement. In order to answer this question, the Panel had first to determine whether the Ontario FIT program should be considered as a "subsidy", according to the definition provided in Article 1.1 of the SCM Agreement. Under this definition, a subsidy must include two components: a "financial contribution" and a "benefit".

With respect to the first condition, the Panel decided that the Ontario FIT program should be seen as a "governmental purchase of goods",[11] and therefore regarded as including a "financial contribution".[12] The Panel turned to the question of conferral of a benefit.[13] Where a measure is characterised as a "governmental purchase of goods", the text of the SCM Agreement provides the following guidance as to the existence of a benefit:[14]

> [T]he provision of goods or services or purchase of goods by a government shall not be considered as conferring a benefit unless the provision is made for less than adequate remuneration, or the purchase is made for more than adequate remuneration. The adequacy of remuneration shall be determined in relation to *prevailing market conditions for the good or service in question in the country of provision or purchase* (including price, quality, availability, marketability, transportation and other conditions of purchase or sale).

The question faced by the Panel, therefore, was whether the conditions granted by the Ontario FIT program are more advantageous than the "prevailing market conditions" for electricity in Ontario. The determination of these "prevailing market conditions" stood at the heart of the Panel report. The complainants presented several alternatives as to the correct benchmark for determining these conditions. These alternatives included the wholesale/retail prices of electricity in Ontario at present, the prices in four other neighbouring jurisdictions (in which, it was argued, the electricity markets were not distorted), and the prices at which electricity is exported from, and imported into, Ontario.[15] The complainants argued that the prices offered

10 *Canada FIT, supra* note 3, para 7.166.
11 See Article 1.1(a)(1)(iii) of the SCM Agreement.
12 *Canada FIT, supra* note 3, para 7.222.
13 Article 1.1(b) of the SCM Agreement.
14 Article 14(d) of the SCM Agreement (emphasis added).
15 *Canada FIT, supra* note 3, paras 7.250 – 7.258, 7.299.

for electricity by the Ontario FIT program were higher than any of the suggested benchmark prices and therefore were to be considered as a "benefit".

The Panel, however, rejected the complainants' argument. First, the Panel explained that, according to WTO jurisprudence, the price benchmark for the determination of the "prevailing market conditions" should be set according to a market where there is effective and unconstrained competition.[16] The Panel found that the prices presented by the complainants were either the result of distorted energy markets, or otherwise affected by conditions that did not exist in Ontario. The Panel therefore held that these prices did not reflect the appropriate price of electricity in a competitive market in Ontario.[17]

Interestingly, the Panel continued by stating that even if a competitive market price had been demonstrated by the complainants, such a price could not serve as the appropriate benchmark in the case.[18] This was because, where a competitive price exists, public policy objectives such as the diversification of energy sources and the reduction of greenhouse gas emissions (mentioned in the report only as "environmental impacts") could not be achieved. As an alternative approach, the Panel suggested the following benchmark for the determination of the "prevailing market conditions":[19]

> [O]ne way we believe it is possible to evaluate whether the challenged measures confer a benefit, that at the same time maintains a market-based discipline, is by evaluating the commercial nature of the FIT and microFIT Contracts against the actions of private purchasers of electricity in a wholesale market *where the conditions of supply and demand mirror those that currently exist in Ontario*.

According to the Panel, the factors that must be considered in this respect included Ontario's aspiration to eliminate coal-fired plants, the Province's need to replace its energy production facilities, and its commitment to encourage the production of energy from renewable sources.[20] The Panel further added that the correct comparison in this case would have been:[21]

> to compare the rate of return obtained by the FIT generators under the terms and conditions of the FIT and microFIT Contracts with the average cost of capital in Canada for projects having a comparable risk profile in the same period.

16 (ibid.:para 7.275).
17 (ibid.:paras 7.301-7.305).
18 (ibid.:para 7.320).
19 (ibid.:para 7.322, emphasis added).
20 (ibid.:para 7.322).
21 (ibid.:para 7.323).

It is this last ruling (which was opposed by one Panel member in a separate opinion) that is of particular interest for the interaction between international trade law and climate change. In its decision, the Panel *de facto* recognised the special circumstances that are unique to investments in renewable energy. The Panel acknowledged that such projects cannot currently compete in the general energy market, that they include higher risk, that there are additional "un-priced" social benefits for such projects,[22] and that in the already distorted energy markets it could be that governmental support for this sector is in fact necessary. Accordingly, the Panel decided to interpret the term "prevailing market conditions" in this case in a very expansive manner: by comparing the FIT rates only with projects that have a comparable risk profile, and by considering broader public considerations (such as environmental policies) as relevant for this legal test. The Panel's ruling thus appears to indicate that climate measures, if well designed, do not violate subsidy or other trade rules.

A similar WTO dispute was launched in December 2010 by the United States (US) against China.[23] In this dispute, the US (joined by the EU and Japan) complained about domestic sourcing requirements in China's wind power industry. Like the Ontario scheme, the Chinese scheme involved grants of subsidies to wind energy producers that purchase their equipment from within China. On the surface, such a programme certainly appeared to violate WTO subsidy rules. One commentator, though, has suggested that the climate change context of the dispute could have provided China with a "necessity" argument under the general exceptions in Article XX of the GATT (which exceptions are discussed further below).[24] The argument here is essentially that the magnitude of the climate change problem, particularly for an energy-hungry, growing China, is so great that China needs to ensure that it has a viable domestic wind energy industry. This then requires governmental incentives to support the local industry, even at the expense of foreign producers, thus making the measures "necessary to protect human, animal or plant life or health" under GATT Article XX(b). If the case had proceeded to formal dispute settlement, there was the potential for some significant climate-related jurisprudence to result, not only on the meaning of the Article XX exceptions, but also on the possibility of their application outside of the GATT itself to the US claim under the WTO's subsidies

22 See footnote 633 in the Panel Report, *Canada FIT, supra* note 3, p. 135.
23 *China – Measures Concerning Wind Power Equipment* (DS419).
24 See Lester (2011) for further discussion of this view of Professor Robert Howse.

agreement.[25] However, in June 2011, China withdrew its subsidies programme, which means that the formal WTO dispute is likely to be discontinued.[26]

While there have been several disputes relating to the electricity industry in the investment sphere, they have not shown a direct link to climate change measures, nor to environmental concerns more generally. One possible exception is the recently settled proceedings in *Vattenfall v Germany*.[27] There, the Swedish state-owned energy company Vattenfall challenged new regulations imposed on its coal-fired power plant project near Hamburg. Following local elections in 2008, the Green Party had come into power in a coalition in the Hamburg municipal government, and had imposed more onerous measures on the plant than had originally been guaranteed – partly on the grounds of the contribution made by the coal-fired plant to climate change. In response, Vattenfall claimed violations of the Energy Charter Treaty,[28] and sought €1.4 billion in damages. However, the proceedings were suspended in March 2010, as the parties headed towards a settlement. While *Vattenfall* demonstrates the kind of climate-related dispute that could well become more common, it has not as yet had any major impact on investment law doctrines.

Two other cases on the horizon reflect an alternative pattern of climate change disputes. Challenges are underway against Spain and the Czech Republic, brought by foreign investors in the renewable energy industries.[29] In these cases, the respondent states are not seeking to support renewable technologies through subsidies or incentives, nor to place increased scrutiny on climate-unfriendly projects. Rather, the states are seeking to roll back existing incentives for renewable energy, on the grounds that the popularity of the incentives has proved too much of a fiscal burden for the government. Thus, the investors claim that the governments have reneged on the promise of a long-term, guaranteed favourable price for the green energy produced by the investors' solar facilities, and that this constitutes a violation of ap-

25 Agreement on Subsidies and Countervailing Measures (adopted 15 April 1994, entered into force 1 January 1995) 1867 UNTS 14.

26 International Centre for Trade and Sustainable Development (2011).

27 International Centre for Settlement of Investment Disputes, ICSID Case No. ARB/09/6. For further background see http://www.iareporter.com/articles/20100319_6 and http://www.iareporter.com/articles/20090719_3, last accessed 14 March 2013.

28 Energy Charter Treaty (1995) 34 ILM 360.

29 Morales & Sills (2011); Jarešová (2011).

plicable investment treaties. These disputes certainly have the potential to lead to interesting jurisprudence on the relations between matters of serious global concern such as climate change, on the one hand, and the realities of governmental budgets in a time of financial crisis, on the other hand. At this stage, though, the disputes perhaps best serve to demonstrate the role that can be played by stable and clear rules on international trade and investment in encouraging private business activity to combat climate change.

Climate change has sparked a wide range of regulatory responses at the international and national levels of government. As a result of this, and as the *Vattenfall* dispute may demonstrate, it is possible that entrenched interests in older technology markets (such as coal- and oil-based energy industries) will seek to challenge the regulatory measures. This will have the effect of presenting a variety of scenarios and forms of regulation to international adjudicators in the trade and investment regimes, including subsidies, taxes, traditional command-and-control measures, market-based mechanisms, and others. These measures will impact on existing players in different ways, and depending on the precise characterisation of the measure and its actual impact, the outcomes of legal challenges are likely to differ. One possible effect of this is that the definitional boundaries of the regimes will be stretched, as adjudicators are pushed, for instance, to consider a particular measure as a prohibited subsidy under WTO rules, or to consider a particular impact as sufficient to amount to expropriation under investment rules. The scope of what we consider as trade and investment law, then, may well be broadened by the pressures of climate change.

C. Trade Law

I. Climate Regulations and the 'Like Products' Debate

In addressing climate change, states may seek to place different regulatory standards on products, based on their differing levels of implication in carbon emissions. However, where two products are physically similar, used for the same purposes and competitive in the same market, different regulations on each may risk breaching WTO rules on non-discrimination in certain circumstances. These rules apply, though, only to "like products": if the products are sufficiently different, then a variation in treatment will not be dis-

criminatory.[30] Trade dispute settlement bodies are thus likely to consider carefully the definition of "like products" when assessing the legality of measures designed to combat carbon emission consequences. On current WTO jurisprudence, it is possible that states would ultimately be permitted to take a product's greenhouse gas emissions into account in determining its "likeness" with another product.[31] The *EC-Asbestos* dispute[32] remains indicative of the current stance on discrimination against like products, demonstrating that in certain instances, such as when a carcinogen like asbestos is being substituted in a marketplace with potentially less carcinogenic alternatives, the WTO Appellate Body will take minute physical differences into consideration, shifting the burden of proof onto the challengers to demonstrate that their goods are indeed "like" a less harmful substitute.[33]

II. GATT Article XX Exceptions to Trade Rules

The WTO Agreements are not without exceptions for measures related to sustainable development. First, Article XX of the GATT allows WTO members to violate WTO disciplines in certain circumstances, such as for the protection of health, the environment or conservation of exhaustible natural resources. Article XX reads, in relevant part:[34]

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

Similar exceptions were agreed upon in the General Agreement on Trade in Services and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs Agreement). As noted by the *Retrospective Analysis of*

30 GATT Articles I:1, III:2 and III:4.
31 Tarasofsky (2008:7); Miles (2008).
32 *EC – Measures Affecting Asbestos and Asbestos-Containing Products* (12 March 2001), WT/DS135/AB/R.
33 Cordonier Segger & Gehring (2003).
34 GATT Article XX.

the 1994 Canadian Environmental Review of the WTO, GATT Article XX is an important safeguard of a state's ability to regulate for sustainable development.[35] However, once a violation of trade law obligations has been established, the burden to defend environmental and social measures falls upon the WTO member state invoking the exception.[36] Article XX exceptions have been tested in WTO disputes related to several topics highlighted in key sustainable development instruments such as Agenda 21 and the Johannesburg Plan of Implementation.[37] For instance, states have made claims related to the use of genetically modified organisms (*European Communities – Approval and Marketing of Biotech Products*),[38] the enforcement of domestic intellectual property laws (*Denmark – Measures Affecting the Enforcement of Intellectual Property Rights*),[39] marine animal protection laws (*US – Shrimp/Turtle*),[40] domestic legislation (*US – Section 211 Appropriations Act*),[41] the regulation of carcinogenic asbestos (*European Communities — Measures Affecting Asbestos and Products Containing Asbestos*),[42] and waste management (*Brazil – Measures Affecting Imports of Retreaded Tyres*).[43]

Such cases have been inconclusive. In many cases, the trade dispute settlement body appears to place highest priority on trade law obligations. Nevertheless, certain cases which appear specifically relevant to climate change measures, under the rubric of environmental measures, hold out some

35 DFAIT (1999).

36 *EC – Measures Affecting Asbestos and Asbestos-Containing Products* (18 September 2000) WT/DS135/R, Report of Panel, paras 8.177–8.178; Lowe (2007:219f.).

37 Agenda 21, available at http://www.unep.org/Documents.Multilingual/Default.asp?documentid=52, last accessed 14 March 2013; Johannesburg Plan of Implementation, Report of the World Summit on Sustainable Development, UN Doc A/CONF.199/20.

38 *EC – Approval and Marketing of Biotech Products* (29 September 2006) WT/DS291/R.

39 *Denmark – Measures Affecting the Enforcement of Intellectual Property Rights* (21 May 1997) WT/DS83/1.

40 *United States – Import Prohibition of Certain Shrimp and Shrimp Products* (20 September 1999) WT/DS58/AB/R.

41 *United States – Section 211 Omnibus Appropriations Act of 1998* (1 February 2002) WT/DS17/AB/R.

42 *EC – Measures Affecting Asbestos and Asbestos-Containing Products* (12 March 2001) WT/DS135/AB/R.

43 *Brazil: Measures affecting Imports of Retreaded Tyres – Report of the Panel* (12 June 2007) WT/DS332/R.

promise that climate change can indeed be accommodated within the existing trade law regime. The WTO Panel in the *Shrimp/Turtle* dispute explicitly reserved the right for environmental measures to be excused from WTO obligations through Article XX(g), provided that similar products from other states were not given preferential treatment through special side agreements. It would be hard to describe the Kyoto Protocol, as an international agreement open to all WTO member states, as setting discriminatory or exclusive standards.[44] To prove that a measure is "necessary" to protect health or the environment, as noted by the Panel in the *Brazil – Retreaded Tyres* dispute, it may be sufficient to demonstrate, on the balance of qualitative evidence, that it is *likely* to contribute to achieving the legitimate health or environmental objectives.[45] As noted in Section 4.2, this line of argument could have assisted China in its WTO dispute over wind power subsidies.

A further systemic exception involves the recognition of non-reciprocal special and differential treatment for developing countries.[46] In addition, in Article XXIV:5 of the GATT, WTO members also exclude customs unions and bilateral or regional free-trade areas from compliance with WTO disciplines in certain circumstances.[47] These regional agreements are important, establishing both disciplines which might affect the adoption of domestic and international carbon rules, and measures to promote sustainable development and environmental cooperation.[48]

III. Subsidies and Border Tax Adjustments

Many forms of climate change measures adopted by governments can arguably be construed as government subsidies. If an allowance, credit or unit that grants a right to produce carbon emissions were characterised as an unfair government subsidy for the purposes of a regional trade agreement or, more generally, WTO rules on subsidies and countervailing measures, allocations of emissions trading systems (ETS) might be challenged in trade

44 Committee on Trade and Environment (2007).

45 *Brazil – Measures Affecting Imports of Retreaded Tyres* (DS 332).

46 1979 "Enabling Clause" decision of the GATT Contracting Parties; see *European Communities – Conditions for the Granting of Tariff Preferences to Developing Countries* (7 April 2004) WT/DS246/AB/R.

47 Bartels & Ortino (2007:3).

48 For two case studies of sustainable development provisions in regional arrangements, Gehring & Cordonier Segger (2005:chapters 15 and 16).

law. Alternately, parallel to a domestic ETS, a regulator may provide incentives for firms to reduce carbon emissions or adopt new technologies. Such measures could be characterised as an inappropriate border measure, likely to be inconsistent with WTO rules.[49] A blanket exemption from tax payments, for instance, has already been judged to be a subsidy.[50]

However, in many cases, trade rules are structured to accommodate such situations. Most trade rules on subsidies, including in the WTO, initially provided for 'windows' or reservations for environmental measures, especially for subsidies meant to encourage the adoption of new technologies. Of course, as trade liberalisation continues and rules are refined through dispute settlement, such windows might become more limited. In WTO negotiations, some interests have proposed to set limits on the 'green box' subsidies, the WTO-recognised category of subsidies which are permitted owing to their environmental objectives, so that subsidies authorised in one state may not be recognised as legitimate by others.[51] In any case, many carbon reduction subsidies could still conform owing to their lack of significant trade impact. In the case of ETS permit allocations, such a trade impact might be assessed by a comparison with any previous, less effective rules. And in most instances, greenhouse gas emission caps place an additional burden on the company and generally set them at a disadvantage *vis-à-vis* non-regulated competitors. Viewed in this light, it would be difficult to challenge an ETS using trade rules on subsidies. Furthermore, trade and investment issues affect the political feasibility of new laws and policies to address climate change. Were a state to attempt to introduce a carbon tax for a carbon-intensive project, this could jeopardise the international competitiveness of its domestic companies.[52]

49 Frankel (2009), with thanks to Christina Voigt for drawing this article to the authors' attention.

50 See especially *US – Canada WTO Corn Trade Dispute* WTO Doc WT/DS357/11 (discontinued).

51 Canadian Federation of Agriculture, Trade Policy Statement, http://www.cfa-fca.ca/pages/index.php?main_id=61, last accessed 13 March 2013.

52 This could also raise questions of the 'regressiveness' of any carbon tax, meaning that already poorer actors from developing countries would be penalised in the short term; though one may question whether the long term impact on the poor in the event of no carbon taxing would not be worse. See Tindale & Hewitt (1999).

To address these concerns, states may seek to implement border tax adjustments (BTAs).[53] The use of BTAs has been proposed as a solution to the potential distortions created by an ETS emission credit requirement:[54]

> For legal purposes … border tax adjustments … amount to two different measures which follow a distinct regime: The first measure, refunds for exports, has to stand the test whether it constitutes an outlawed subsidy. The second measure, taxes charged on imports, has to fend off the suspicion that it represents an illegal discrimination.

As suggested by Pauwelyn, a state seeking to implement carbon trading provisions could utilise BTAs so as to ensure continued competitiveness.[55] To avoid challenges of discrimination, he argues that importers are being required to pay a carbon tax at the border to equalise competition between actors, where "the tax is then simply the extension to imported products of the tax or cost of holding emission allowances imposed on domestic producers". The opposing argument highlights that, in the context of emissions trading, the allowances (which are levied on imported products to mirror their carbon costs of production in a non-regulated state) are often allocated free of charge to domestic actors, raising claims of national treatment violations.[56] Furthermore, it is unclear whether such BTAs would avoid challenges where the tax concerned an input such as energy, which is fully consumed and not present in the final product itself. The *US-Superfund* dispute offers some guidance,[57] where the WTO Panel permitted BTAs for chemicals used during production, although these chemicals were also still present in the final product.[58] Just as an ETS could be seen in subsidies terms as a tax, an ETS could be characterised as having the effect of a tax, permitting equalisations. A scheme characterised as a unilateral 'carrot or stick' BTA could be a promising avenue for emissions trading schemes within the framework of global trade rules.[59] It would be important to calculate the ETS

53 Report of the Working Party on Border Tax Adjustments, BISD 18S/97 (2 December 1970).
54 Ismer & Neuhoff (2004:9).
55 Pauwelyn (2007:41).
56 With thanks to Christina Voigt for her input on this argument.
57 *United States – Taxes on Petroleum and Certain Imported Substances*, Report of the Panel, Doc L/6175 – 34S/136, 1987.
58 Tarasofsky (2008:11).
59 Zhang (2009).

equivalent BTA conservatively, and to be prepared to address challenges in trade or investment tribunals.[60]

IV. Other Trade Law Provisions

Many other WTO rules discipline the types of health, environmental, natural resource management, consumer safety and other standards that WTO members may apply to products if exceptions are not secured.[61] Most favoured nation (MFN) and national treatment commitments are implemented through the WTO Agreement on Technical Barriers to Trade (TBT Agreement),[62] which addresses technical regulations and standards, and the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement),[63] which addresses health and plant safety regulations and standards. The TBT Agreement and the SPS Agreement define when certain restrictions on trade are allowed, to limit protectionism (the use of regulations to unfairly privilege domestic firms *vis-à-vis* the firms of trading partners).[64] As such, for instance, the SPS Agreement essentially provides specific restrictions on the types of phytosanitary standards governments should adopt, conditioning the relevant GATT rules and exceptions.[65] The WTO TBT and SPS committees study and debate these issues, and can grant time-limited exceptions to developing countries in light of their particular financial, trade and development needs.[66] WTO members also commit to protect intellectual property rights through the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs Agreement), to regulate subsidies in the WTO Agreement on Subsidies and Countervailing Mea-

60 *Ethyl Corporation v Canada*, Award on Jurisdiction, 24 June 1998, (1999) 38 ILM 708.

61 There is a growing opinion that, in the GATT, the same rules as in the TBT should be in force, permitting PPMs to be taken into account under certain conditions.

62 Agreement on Technical Barriers to Trade (adopted 15 April 1994, entered into force 1 January 1995) 1868 UNTS 120.

63 Agreement on the Application of Sanitary and Phytosanitary Measures (adopted 15 April 1994, entered into force 1 January 1995) 1867 UNTS 493.

64 Echols (2001); Button (2004:43-90).

65 Button (2004:10-11).

66 See WTO's Documents Online database (http://docsonline.wto.org, last accessed 14 March 2013) using document symbol G/SPS/GEN for all documents of the SPS Committee, including those related to exceptions for developing countries.

sures[67] (Subsidies Agreement), to regulate government procurement through the WTO Agreement on Government Procurement,[68] and to regulate investment measures related to trade in goods in the Agreement on Trade-Related Investment Measures[69] (TRIMs). Such obligations might affect government attempts to regulate in relation to climate change.

The TRIPs Agreement obliges WTO members to set laws in place to protect intellectual property rights, potentially affecting technology transfer. The Subsidies Agreement disciplines the types of subsidies WTO members can provide, potentially affecting emission reduction incentives. The WTO Government Procurement Agreement and the TRIMs are minimalist accords, as governments were unwilling to take on significant restrictions in these areas.[70] For instance, the TRIMs applies only to measures that affect trade in goods, imposing a commitment to notify certain specific trade-related investment measures that discriminate against foreigners or foreign products.[71] However, if more stringent disciplines are adopted on government procurement or investment, they might constrain schemes for public purchasing of lower-carbon products, or climate regulations affecting foreign investors.

The WTO commitment to provide market access on a non-discriminatory basis can also curtail the type of rules that states adopt, affecting a state's ability to restrict certain imports selectively.[72] Article XI:1 of the GATT, the provision that prohibits quantitative restrictions, has been used to evaluate the GATT-consistency of natural resource and environment-related bans, for example in the *US – Tuna* case[73] and *US – Shrimp* case.[74]

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67 Agreement on Subsidies and Countervailing Measures (adopted 15 April 1994, entered into force 1 January 1995) 1867 UNTS 14.

68 Agreement on Government Procurement (adopted 15 April 1994, entered into force 1 January 1995) 1867 UNTS 194.

69 Agreement on Trade-Related Investment Measures (adopted 15 April 1994, entered into force 1 January 1995) 1868 UNTS 186.

70 Gehring et al. (2006:139).

71 (ibid.).

72 Trebilcock & Howse (2005:336).

73 *United States-Restrictions on the import of Tuna* (1991) GATT BISD 39S/155, (1991) 30 ILM 1594.

74 *United States: Import Prohibition of Certain Shrimp and Shrimp Products*, Report of the Panel (15 May 1998) WT/DS58/R; see also *United States: Import Prohibition of Certain Shrimp and Shrimp Products*, Report of the Appellate Body (6 November 1998) Doc. WT/DS58/AB/R.

States could have trouble giving significant trade advantages to products produced under the application of a national or even international ETS. For instance, the EU has a firm commitment to promote climate protection internationally,[75] and its scheme allows covered emitters to benefit from Clean Development Mechanism (CDM) and Joint Implementation (JI) credits, though only up to a specified limit.[76] If standards were perceived as being based on the processes and production methods (PPMs) used to create products, and appeared to discriminate between products from different countries, any preferential treatment in terms of tariffs for those products could be challenged in the WTO and other regional trade dispute settlement fora.[77]

However, few trade rules prevent general use of labels or certification schemes. Such 'eco-labelling' allows the consumer to know that certain goods were produced in a more environmentally friendly (or, at least, less environmentally harmful) manner than the competing product.[78] As noted by Simon Baughen:[79]

> Caution as regards PPMs is perhaps understandable, in that they can be seen as one [WTO] member's attempt to impose its environmental standards on other members. However, the issue of PPMs may, in future, come up in the rather different context of transboundary spill-overs, where the objection to the way in which a product is manufactured is based on adverse environmental consequences felt in the member state imposing the measure. This could well occur in the context of the contribution to global warming made by the carbon emissions produced from a particular mode of production adopted by a member.

Taking this proposition one step further, the practice of climate-compliant self-labelling in emissions trading schemes could in theory fall within the prohibition on PPM-based measures, should a state use such voluntary declarations or self-labels to assign legal consequences. However, where the

75 This became stronger with the entry into force of the Lisbon Treaty, as it explicitly commits the Union, in the new Article 191 (ex 174) of the Treaty on the Functioning of the European Union, as follows: "1. Union policy on the environment shall contribute to pursuit of the following objectives: […] – promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change.".

76 Gardner (2008). As a group, ETS participants were allowed to buy up to 1.4 billion CDM credits during the 2008 – 2012 trading phase.

77 International Institute for Sustainable Development (2000).

78 An interesting problem would be whether a carbon market 'seller' – habitually selling credits rather than purchasing them – could voluntarily eco-label itself or its product.

79 See e.g. Baughen (2007:4).

impact on sustainable development and the environment is transboundary in nature, as is the case with climate change and carbon emissions, then the measure could no longer be seen as extra-territorial but rather becomes one which WTO panels, in the *US – Shrimp* dispute and others, have recognised as being within the competence of states.[80] Emissions trading could be characterised as addressing such transboundary issues.

D. Investment Law

I. The Response of Investment Law to Carbon Trading Schemes

Perhaps of greatest relevance to new laws related to emissions trading schemes and more sustainable, low-carbon economic development is that more than 3,000 international investment agreements (IIAs) have been negotiated in recent decades,[81] supplemented internationally by rules and dispute settlement procedures developed through the United Nations Commission on International Trade Law (UNCITRAL) and the International Centre for Settlement of Investment Disputes (ICSID). Private sector investment could help to finance the adoption of low-carbon technologies.[82] Some even argue that "private finance [is] now the biggest show in town".[83] These IIAs seek to create favourable conditions and stable frameworks for the treatment of foreign investors and investments, in order to encourage private sector investment in developing countries. The obligations of IIAs usually guarantee a minimum standard of treatment, or "fair and equitable treatment", toward the foreign investor. They also guarantee non-discrimination to investors in "like circumstances". Some IIAs commit to "stabilisation clauses", which can exclude IIA-covered investments from changes in the law of host states. Such clauses may be important to future attempts to develop domestic climate rules. The "legitimate expectations" of the investor regarding a regulatory framework may become grounds for a potential challenge by a foreign investor toward an (unfavourable) change in circumstances due to new climate change regulations, including emissions trading

80 *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, AB-1998-4, para. 186.
81 Newcombe & Paradell (2009:57-64); UNCTAD Secretariat (2007).
82 Murphy (2008).
83 Klein & Harford (2005:51).

schemes that impose significant new costs on private firms.[84] By December 2007, there were 280 known IIA arbitrations, in which foreign investors challenged governments in often confidential "investor-State" dispute settlement proceedings by invoking investment agreement clauses.[85] Potentially, these IIAs, measures and rule-making bodies are more likely than trade law to constrain carbon trading and related regulatory measures. However, it may be possible to design emissions trading systems carefully, to avoid becoming embroiled in disputes of this kind. It is also possible to design international investment agreements and trade agreements to ensure that legitimate new energy, transportation, forestry, waste management and other measures are, at least, not frustrated, but rather perhaps even promoted.

Indeed, international investment agreements (IIAs) could potentially promote sustainable development and climate change action by ensuring more stable investment environments and thus encouraging investors to provide private funds for CDM projects and for Joint Implementation (JI). However, in these accords, states have also agreed on disciplines that have been used recently to challenge regulatory measures related to sustainable development generally.[86] Although, as discussed in Section 4.2, climate change disputes have not yet featured heavily in the investment regime, the principles arising from the disputes challenging other measures related to sustainable development could be applied to future, specifically climate-related disputes. As noted above, in IIAs, parties often grant foreign investors the right to challenge host states in investor-state arbitral tribunals under UNCITRAL or ICSID rules, particularly on claims related to performance requirements, fair and equitable treatment, expropriation and transparency. These privileges may be used to challenge carbon trading measures, depending on how new domestic schemes are designed, and how the IIAs are interpreted.[87] As with trade law, these challenges have both direct effects, where a state is asked to compensate an investor or group of investors for the economic impact of new carbon regulations, or indirect regulatory effects, where environment and development regulators are discouraged from adopting or implementing carbon reduction measures owing to threats of investor-state litigation.[88] Several examples are provided to illustrate these implications.

84 Miles (2008:19).
85 Newcombe & Paradell (2009:59).
86 Miles (2008:26). See also Gehring et al. (2011).
87 Werksman et al. (2001).
88 Baetens (2011).

First, on an almost theoretical level, emissions trading schemes may not always be classified as pure market-based instruments, devoid of "command and control" origins. The very existence of a government-imposed cap on the amount of carbon that may be emitted by a given sector is evidently a form of "control". That cap establishes a performance requirement, but allows for the market to set the price of carbon emissions and for firms to choose abatement technologies to meet the standard. However, even the introduction of new performance standards could pose questions under certain investment treaties. In US and Canadian treaties, these states have sought to prevent or constrain the use of performance requirements or standards that were once popular in developing countries, as a way of enhancing the value of an investment by mandating a certain way of producing a product, such as sourcing local services, labour or content (local content requirement), or earning foreign exchange through export requirements. It is possible that carbon caps may fall foul of these new prohibitions on performance requirements.

Second, the actual legal nature of an allowance has been flagged as an issue in the design of various US emissions trading systems. For instance, the SO_2 trading system under the Acid Rain Program of the 1990 Clean Air Act raised the issue of property rights. The possibility that an allowance would constitute a property right raised arguments in the US based on "taking of property" under the Fifth Amendment of the US Constitution. In the event, the issue was resolved by classifying the allowances as tradable goods which were, nevertheless, not property rights as such.[89] However, legal concerns remain that contractual or property rights might be subject to claims by those holding the credits, in the situation where regulations are introduced which alter the value of the allowance or credit in question.[90] The decision to imbue allowances with property-like status could potentially open governments to allegations of expropriation under investment treaties, should the value or quantity of these allowances be reduced in the future. The potential for such an approach to conflict with international investment law is evident, and could lead to investor-state disputes. Having said this, the "quasi-property rights" character of emission certificates is now widely recognised and seen as a necessary condition of many emission trading schemes.

89 Gehring & Streck (2005).
90 See especially Fichthorn & Wood (2002).

Third, it is important to consider how allowances or emission reduction credits (ERCs) are allocated amongst the participants in an emissions trading scheme. The allocation of allowances by the government to the actors, whether these are particular industry-specific actors, or "carbon-intensive parties" or any other pre-determined set of actors, can be problematic in trade and investment terms. Allocations indicate the degree to which carbon can be emitted within a system, and thereby "pre-determine the overall environmental benefits that can be expected from the system".[91] Allocation is an intensely political process, and compromises are often necessary. Both trade and investment concerns can be triggered by allocations of credits which are discriminatory, or not "fair and equitable". Not only could this process raise concerns for the competitiveness of firms and operators within the domestic and international markets, but it also raises concerns as to discrimination toward non-national actors that compete in the targeted market. Among various options open to designers of emission trading schemes, free allocation, allocation based on 'grandfathered rights', allocation based on more modern baselines, and partial auctioning all pose similar problems. If any non-national actors within the territory do not receive precisely the same allowances as comparable national actors, these firms can argue that they have been prejudiced in the market, as they incur higher costs to reduce their carbon output or to find the resources to pay for their continued output. This could be held to violate trade obligations of non-discrimination and national treatment, but, more importantly, it could also be characterised as going beyond the fair and equitable treatment standard promised to foreign investors in most IIAs. The EU's ETS provides one possible example, where, in light of the EU's design choices, windfalls may have been received by certain parties through the free allocation process,[92] and this could have triggered investment disputes. In another example, the planned New Zealand Climate Change Response (Emissions Trading) Amendment Act 2008 would have gradually incorporated sectors of the New Zealand economy until 2013, and would have permitted some allocations free of charge.[93] Still, as the proposed scheme was designed to be much broader in scope than, for example, the EU ETS or Regional Greenhouse Gas Initiative, distortions would have been less relevant. The further option of 100% auctioning resolves many such

91 Wemaere et al. (2005:41).
92 Ellerman & Joskow (2008).
93 Climate Change Response (Emissions Trading) Amendment Act 2008, section 73. See NZIER (2007).

concerns, though this can still entail competitive consequences, depending on the frequency, size and accessibility of auctions, should it be shown that *in effect,* regulations made participation more challenging for foreign firms. This problem is difficult but not impossible to address. For instance, many ETS regulations have incorporated provisions specifically ensuring no distinction between national or foreign-owned companies.

A fourth basic design element that triggers trade and investment issues involves the commitment to regulatory transparency, which may well support the designers of emissions trading schemes. It has been argued that emissions trading may be –[94]

> more transparent and accessible than traditional command and control schemes: anyone wishing to challenge the environmental effectiveness of the trading regime can question directly the level of the overall cap rather than having to unravel the, often complex, relationship between specific controls applied to an individual plant and an ambient environmental quality standard.

The transparency of domestic law and policymaking process is important to any potential investor.[95] However, as mentioned above, investors can benefit from investment treaty guarantees against changes in government policy (not just fiscal or tax policy, but also environment and development policy),[96] hoping to stabilise regulations for the lifetime of an investment.[97] A regulator may need to make it clear to potential investors that post-establishment decisions, such as governmental decisions influencing the investment after it has been made, will take state commitments under the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol into account. Moreover, transparency works in many directions. Impact assessments and other such requirements can contribute to stability rather than detract from it, by generating valuable investment intelligence and creating a more level playing field for investors.[98] To that end, by securing transparent policy decisions, states might insulate their new climate

94 Robinson et al., 45. See also Stewart (2000).

95 The preamble to the Aarhus Convention expressly calls for "transparency in all branches of government" when implementing provisions related to the Aarhus Convention's aims. Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (adopted 25 June 1998, entered into force 30 October 2001) 38 ILM 17.

96 Pauwelyn (2007); Ross-Robertson (2003).

97 Baughen (2007:chapter 7).

98 Gehring, Cordonier Segger & Newcombe (2011).

policies from formal investor-state challenges, while also contributing to their clarity and legitimacy.[99]

II. Climate Regulations and the 'Like Circumstances' Debate

As seen in the *Methanex v US* dispute,[100] not all investor-state tribunals are willing to interpret their jurisdiction over regulators so broadly. While some IIAs can be used to question environmental protection and sustainable development regulations, others clearly cannot be extended so far.[101] Still, where states enact measures, including emissions trading schemes, to favour low-carbon development over carbon-intensive projects, especially in developing countries where the extractive sectors are dominated by a few foreign investors, these interests could well frame investor-state challenges in terms of discrimination. Where such allegations are raised, it will be important to secure an appropriate interpretation of the concept of "like circumstances". Under the wording of a typical IIA, it is only where two parties are in like circumstances and receive different treatment that tribunals would find discrimination. For future climate change measures, the inclusion of public interests and carbon emissions in one proposed project, as opposed to another which does not take such issues into account, might serve to distinguish hitherto "like" parties from one another.

The recent *Parkerings v Lithuania* ICSID arbitration demonstrates this principle.[102] The case concerned two competing firms from Norway and the Netherlands in their tenders to construct and operate traffic facilities in the Lithuanian capital Vilnius. The Norwegian company, Parkerings, proposed a project that impacted on a UNESCO World Heritage site at the centre of the old town of Vilnius. In response to this, the authorities imposed more onerous requirements on the project of Parkerings than on that of its Dutch competitor, which posed no similar archaeological and cultural heritage issues. Parkerings then claimed discriminatory treatment in favour of its Dutch competitor. The tribunal's discussion of this claim centred on the concept of

99 Tarasofsky (2008).
100 *Methanex v USA*, Award on Jurisdiction, 28 August 2002.
101 Lawrence (2006).
102 *Parkerings-Compagniet AS v Republic of Lithuania*, ICSID Arbitration Case No ARB/05/8, Award, 11 September 2007, paras 375 and 392, available at http://ita.law.uvic.ca/documents/Pakerings.pdf, last accessed 14 March 2013.

"likeness". The arbitrators ultimately found that the state could take into account matters of a proposed project's impacts on the environment when deciding how to treat different projects. In their view, "[t]he historical and archaeological preservation and environmental protection could be and in this case were a justification for the refusal of the project. … the City of Vilnius did have legitimate grounds to distinguish between the two projects."[103] The tribunal's approach has been welcomed in leading legal scholarship on these issues:[104]

> This decision points to the ecological impact of an investor's project as a determinative factor in the like circumstances test. If this approach is followed in future investor-state disputes, then the potential for non-discrimination requirements in international investment agreements to frustrate climate change mitigation regulation will be significantly reduced.

Learning from this experience, negotiators may need to recognise the importance of maintaining flexibility for climate change measures in investment treaties, while regulators must take care to design the rules for carbon trading, and clean technology investments, to avoid discrimination between industries in like circumstances. This approach can extend to implementation of emissions trading systems. For instance, in section 60 of the planned New Zealand Climate Change Response (Emissions Trading) Amendment Act 2008, a state authority could have exempted otherwise regulated participants under the Act from complying with the emissions trading provisions. For firms with which the Crown signed a negotiated greenhouse gas agreement before 31 December 2005, such an exception may be granted, providing both stability for existing agreements and flexibility for government authorities.[105] The flexibility provided by the planned New Zealand Act would have been beneficial when addressing discrimination, expropriation or other investment-related claims.

Section 4.5 of this article discusses further potential refinements to ensure that trade and investment laws, particularly in regional treaties which advance beyond the globally agreed disciplines, do not unduly constrain domestic regulatory flexibility to address climate change, and might even promote more sustainable development.

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103 (ibid.:paras 392, 396).

104 Miles (2008:32).

105 New Zealand Climate Change Response (Emissions Trading) Amendment Act 2008. We thank Richard Benwell for his correspondence with us on this point.

III. Indirect Expropriation

Apart from the design elements of emissions trading schemes discussed in the two preceding sections, the effect of such schemes also poses risks of investment law claims of "indirect expropriation".[106] States choose whether their scheme will be limited to a particular sector or be economy-wide in application, and which jurisdictions will be subjected to (or allowed entry into) the scheme. Emitters targeted by such systems can include both direct emitters of carbon, such as power plants or even car owners, and also those further upstream in the chain of carbon use, such as oil companies or petroleum refineries. For instance, the EU's ETS covers power and industry sectors only,[107] and focuses simply on addressing CO_2 emissions.[108] Depending on the data collected and economic impact assessments, states decide whether their schemes will be comprehensive or simply sectoral, and whether partial coverage can achieve their objectives. Such choices may affect the competitiveness of national companies against each other and against foreign companies. If investments in foreign investor-dominated sectors were seen as being unjustly targeted by stringent and costly requirements "tantamount to expropriation", while other domestic investor-dominated heavy emitting sectors were excluded from the scheme, challenges might be issued under IIAs. If a regulator places a cap on the use of carbon in some sectors and not others, there is the potential for such measures to be characterised as indirect expropriation of that company's investment. Similarly, if the cost of carbon certificates becomes high enough to threaten the economic viability of certain investments (for instance fossil fuel exploration and development, or a coal-fired power plant), the carbon measure could also be deemed tantamount to expropriation. The core debate focuses on who bears the risks of private investments into "high carbon" sectors – host governments or investors? Essentially –[109]

> ... if a government measure is undertaken for a clear public welfare purpose (such as health and safety, environment, public morals or order, etc.), and is non-discriminatory, but has the effect of harming a … foreign investor, under

106 Huq & Reid (2005).
107 Extensions to the scheme are, however, continually under review. Most recently, the aviation industry is intended to be subjected to the system.
108 Ellerman & Joskow (2008).
109 Cosbey (2003:3).

what circumstances can that measure be held to be an indirect expropriation, for which the government must pay compensation?

As demonstrated in the *Ethyl v Canada* case,[110] claims of indirect expropriation can be made when new government measures affect the value of a foreign investment in a specific or unique industry. Such issues could arise for governments implementing climate change measures, particularly because, in some countries, carbon-intensive industries are dominated by multinational extractive enterprises with the necessary know-how and capital for exploration and development, and also the necessary foreign nationality to bring claims under investment treaties. Moreover, the repeal by Canada of its ban on a gasoline additive known as MMT following the *Ethyl v Canada* case clearly demonstrated the indirect effect of a foreign investor challenge on government policy directions.[111] Indeed, if a developed state such as Canada could be perceived to have 'chilled' its regulatory decisions because of international investment law obligations, it seems possible that a developing country might face even higher pressure to avoid necessary regulatory changes. Whether or not the developing country could in fact afford to compensate for the expropriation is a particularly pressing issue in the case of climate change measures, including emission trading schemes.

IV. Stabilisation Clauses

A further concern must be briefly noted. Certain IIAs contain 'stabilisation clauses', under which states agree to freeze the laws of a country to the time the investment was made, or agree not to apply new laws to the investment, or agree to bear the costs of all regulatory changes affecting an investment. These commitments could be problematic from the standpoint of ETS regulations. The principal difficulty posed is that states are bound to continue treating the investment in a certain way which may become no longer viable in light of the UNFCCC objectives, and the developing scientific discoveries that have driven the evolution of the climate regimes.

110 *Ethyl Corporation v Canada*, Award on Jurisdiction, 24 June 1998, (1999) 38 ILM 708.

111 Newcombe (1999).

E. The Catalyst of Climate Change in Contemporary Trade and Investment Law

The previous section presents a somewhat mixed picture, with some aspects of the trade and investment regimes already offering sufficient flexibility to accommodate climate change measures, and other aspects potentially posing a threat. But despite real risks within certain areas of trade and investment law that the regimes are currently inadequate to deal with the challenges of climate change, there is undoubtedly cause for optimism. Key players in the regimes are recognising the need for better rules to allow climate change measures to take stringent effect. The arrival of the climate change problem, along with raising awareness of pressing and legitimate environmental and social objectives, has sharpened the desire for more refined international trade and investment agreements. Climate change has spawned a wide range of literature by academic commentators and NGOs alike, who have examined its threats and potentials within trade and investment law.[112] These pressures, over time, have led to incremental changes in thinking within the trade and investment community, such that debates over issues in each regime have opened up, and linkages have been identified and studied.[113] Negotiators and adjudicators are now more willing to engage with other regimes and other goals than in the past, and states have recognised the need to reserve policy space in order to achieve key environmental goals.

As noted, the obligations of states under international trade and investment law might intersect with certain elements of climate change regulations, requiring careful work to design compatible measures to establish emissions trading schemes, and may potentially lead to constraints on policy and law-making flexibility.[114] However, as noted in the 1987 Report of the World Commission on Environment and Development,[115] the 1992 Rio

112 See e.g. Cordonier Segger (2005); Green (2005); Condon (2009); McKenzie (2008); Veel (2009); Green (2006); Doelle (2004); Goh (2004); Miles (2008); Werksman et al. (2001); Tarasofsky (2008).

113 For linkages between trade law and non-trade issues such as the environment, see e.g. Trachtman (1998); Bethlehem et al. (2009:Part IV); Gehring & Cordonier Segger (2005); Charnovitz (2007); Grosse Ruse-Khan, (2010); Green & Epps (2007). For discussion of investment linkages, see e.g. Gehring et al. (2011); Spears (2010).

114 See e.g. Miles (2008).

115 World Commission on Environment and Development (1987).

Declaration and Agenda 21,[116] and the 2002 Johannesburg Declaration and Plan of Implementation,[117] trade and investment could also provide important contributions to climate change action. Just as in the international climate regime, in many trade agreements and international investment agreements, parties explicitly highlight their shared commitment to sustainable development as part of the object or purpose of the treaty. For instance, the North American Free Trade Agreement includes a reference to the need to "promote sustainable development" within its preamble.[118] Both the Canada–Chile Free Trade Agreement and Chile–US Free Trade Agreement also recognise the importance of strengthening capacity to protect the environment and promote sustainable development.[119] The Canada–Peru Free Trade Agreement makes explicit reference, in the chapter entitled *Investment*, to corporate social responsibility and the need for parties to encourage enterprises to incorporate such standards into their internal policies.[120] The EU–Chile Association Agreement goes further, committing these countries to implementing their accord in line with the "principle of sustainable development",[121] and EU economic negotiations with Central America seek to "harness globalisation in support of sustainable development" and "ensure an appropriate balance between economic, social and environmental components in a sustainable development context".[122] Sustainable development is a key objective of the world community, not only in the abstract, but in the very arena that has most sought to encourage economic growth –investment and trade policy and law.[123] Measures to address climate change are

116 Rio Declaration on Environment and Development (1992) 31 ILM 874; Agenda 21, *supra* note 36.

117 Johannesburg Plan of Implementation, Report of the World Summit on Sustainable Development, UN Doc. A/CONF.199/20.

118 North American Free Trade Agreement, (1993) 32 ILM 289.

119 Canada-Chile Free Trade Agreement, 36 ILM 1079; US-Chile Free Trade Agreement, 42 ILM 1026.

120 Canada-Peru FTA, signed 29 May 2008, Chapter 8 "Investment", Article 810. See also Delfino et al. (2008).

121 EU – Chile Association Agreement, 30 December 2002, available at http://ec.europa.eu/trade/issues/bilateral/countries/chile/eu/euchlagr_en.htm, last accessed 13 March 2013.

122 Draft EU – Central America Negotiating Directive (2007), paras 3.4 & 3.7; the States involved are Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama. See http://www.bilaterals.org/article.php3?id_article=8336, last accessed 13 March 2013.

123 Gehring & Cordonier Segger (2005:Introduction).

surely an integral part of sustainable development, and so these statements of purpose are significant.

In regional trade and investment agreements, states have gone further in certain instances, seeking to promote sustainable development through the inclusion of innovative yet practical international instruments. Several preventive provisions, cooperative mechanisms and new trade liberalisation enhancement initiatives can be identified. There are also important procedural innovations which can support sustainable development. Many legal options are available to states seeking to deliver on a commitment to sustainable development in a regional trade and investment regime, either as a principle or an objective.

First, states may include introductory and hortatory provisions, which signal the parties' commitment to sustainable development and climate change, such as preambular commitments to "promote sustainable development" as a "joint resolution" of the parties to the accord, or other initial provisions which commit the state to engage in the accord in line with a "principle of sustainable development". One recent Free Trade Agreement (FTA), the Japan–Switzerland Agreement, specifically highlights the parties' determination "to adequately address the challenges of climate change" in its preamble. Article 9 of the same agreement includes a slightly more substantive obligation to "encourage trade and dissemination of environmental products and environment-related services" in pursuit of "climate-change-related goals". Similarly, the Korea–EU FTA includes an obligation in Article 13.6(2) to "strive to facilitate and promote trade and foreign direct investment in environmental goods and services, including environmental technologies, sustainable renewable energy, energy efficient products and services and eco-labelled goods".

Second, states may include provisions which create 'windows' or exemptions from trade rules, where trade obligations might otherwise constrain regulators and policymakers, mitigating their effects. For instance, in trade and investment agreements, many states adopt general exceptions for measures related to the conservation of exhaustible living and non-living natural resources, and the use of measures, including environmental measures, necessary to protect human, animal, or plant life or health.

States may further adopt specific exceptions in sections of the trade and investment treaty where it is clear that trade rules on, inter alia, sanitary and phytosanitary standards, technical barriers to trade, intellectual property rights, public procurement, services, or investment, might constrain the use of environmental and social measures. States may insert explicit reservations

by the parties of socially or environmentally sensitive sectors (such as parks, land use planning, energy policy, and other natural resources reserved from investment provisions, or health and education sectors from services disciplines), often linking these reservations to the findings of sustainability impact assessments or environmental assessments of the trade agreements. States can also include general interpretive statements to guide potential areas where trade rules could otherwise constrain the use of measures agreed in other international (or regional) agreements.

Third, states may negotiate mechanisms for value-added, but parallel (non-integrated) social and environmental cooperation strategies, such as parallel agreements for cooperation on environmental and social matters; the development of institutions for social and environmental cooperation including carbon trading; the agreement to adopt and implement common work programmes on specific environmental or social projects such as emissions monitoring and registration, particularly when accompanied by reliable capacity-building, technology transfer and financing commitments; and even factual report or complaints mechanisms to provide recourse when it appears that environmental or social rules are being violated in order to gain trade- or investment-related advantages.

Fourth, states may include constructive sustainable development-oriented trade and investment rule enhancement initiatives, where a positive 'triple-win' might be achieved within the trade agreement. These may include, for instance, sanitary and phytosanitary provisions which promote scientific cooperation and risk assessment to improve levels of health or environment protection; government procurement provisions which make public purchasing of low-carbon goods or services more affordable; technical barriers to trade provisions to implement non-discriminatory certification processes and promote mutual recognition; intellectual property rights provisions which support low-carbon technology transfer or respect for traditional knowledge; investment provisions which privilege socially responsible corporations and low-carbon investments; measures to promote reductions in illegal trade in forestry products; measures to secure additional liberalisation of environmental goods and services such as low-carbon transportation; or measures to secure reductions in unsustainable fossil fuel development subsidies.

Finally, certain procedural innovations may be undertaken by the parties during the trade negotiations to promote sustainable development, and secure the integration of environmental and social concerns into a trade and investment treaty. Such process changes may also assist parties and others

in identifying useful innovations that might be included in a trade or investment agreement. For instance, states may undertake *ex ante* (or ongoing) environment, development, human rights or sustainability impact assessments and reviews of trade liberalisation policies and draft treaties. The outcomes of these assessments may be used to identify the areas where preventive, cooperative or enhancement initiatives could be useful in a trade or investment treaty. States may also host consultations between economic, environment and development authorities. They may agree upon, or strengthen, diverse mechanisms to ensure transparency and public participation in trade negotiations, and they may also establish new mechanisms to inform tribunals about sustainable development issues, including *amicus curiae*, public participation and expert consultation measures.

It is not yet clear which strategies or instruments will have the most success in helping to integrate social and economic development and environmental protection. It is likely that no one single measure provides the solution to all climate change challenges. Rather, many different provisions may be needed throughout the treaty. Certain instruments, such as the normative or regulatory evaluation elements of *ex ante* sustainability impact assessments, are still underdeveloped. Others, such as the new system of certification to ensure that forestry products traded from Peru to the US are not obtained through illegal logging, are simply very new.[124] Such provisions alone will not necessarily ensure that sustainable development priorities including climate change are given more weight by the parties in complying with their obligations, or by dispute settlement bodies in interpreting agreements, as compared to the other relevant objectives of agreements. However, they appear likely to contribute to the achievement of a greater degree of integration in the trade agreements. This is an important first step towards preparing the trade and investment regimes for future climate change measures.

F. Conclusion

Undoubtedly, the economic activity associated with global trade and investment has been a significant cause of greenhouse gas emissions. At the same

124 United States – Peru Trade Promotion Agreement, signed on 12 April 2006, available at http://www.ustr.gov/Trade_Agreements/Bilateral/Peru_TPA/Final_Texts/Section_Index.html, last accessed 14 March 2013; International Centre for Trade and Sustainable Development (2007).

time, though, global trade and investment – suitably reoriented towards, for instance, new low-carbon technologies and environmental services – will be crucial as a principal tool to address climate change.

This means that the connections between climate change and the international law governing trade and investment, and the effects of each on the other, will continue to be highly important. Certainly, climate change may not yet be identifiable by itself as a specific factor driving the evolution of trade and investment rules. Indeed, climate-related disputes have not as yet overrun the dockets of trade and investment tribunals, and those that have arisen so far in each regime have not yet represented jurisprudential watersheds. While some recent trade and investment agreements do refer to climate change specifically, these are still few, and often as part of an overarching commitment to environmental protection. However, climate change has had, and will have, more subtle effects on trade and investment law in a range of ways.

First, climate change has arguably broadened the scope of trade and investment law. As governments pass new measures in ever more creative ways aimed at addressing climate change, entrenched interests will naturally seek to challenge these, presenting new scenarios to adjudicators and pushing the definitional boundaries of the subjects. In addition, if trade law is about rules that not only seek to limit governmental powers to restrict trade, but also to *promote* international trade, then international climate law itself can be viewed as part of trade law. In this light, mechanisms such as the CDM are themselves trade rules that promote certain beneficial kinds of trade, channelling global investment into more renewable forms.

Second, climate change has prompted serious analysis of whether the existing trade and investment law regimes are adequate to deal with the tensions that it imposes. Much work has already been done in identifying features of the existing trade and investment law regimes that purport to threaten the efforts of states to combat climate change. This work has demonstrated that there is indeed a risk that the existing regimes will have the effect of frustrating climate change measures and outlawing desirable governmental strategies to limit greenhouse gas emissions. Nevertheless, there is certainly cause for optimism. Key players in the trade and investment regimes have already begun to recognise the need for better rules in this respect. Along with increased awareness of other pressing and legitimate environmental and social objectives, the arrival of the climate change problem has sharpened the desire for more refined international trade and investment agreements.

Climate change is a major part of a debate on the wider effects of trade and investment that is now more enlightened than it was a decade or two ago. Particularly in the academic and policy *discourse* on trade and investment, climate change routinely features as a key topic of discussion. By its nature, raising the issue of climate change calls for consideration of many factors previously downplayed in trade and investment law, such as intergenerational equity, technology transfer and scientific controversies. This climate-infused discourse has unquestionably led to incremental changes in thinking amongst lawyers and jurists working in the two regimes.

As a result, recent FTAs and bilateral investment treaties demonstrate a greater concern for non-economic interests and greater flexibility to balance trade and investment commitments with other policy goals such as environmental protection, human rights or corporate social responsibility. Similarly, recent jurisprudence from the WTO dispute settlement organs and from investment tribunals has grappled far more openly with such issues than in the past. The jurisprudence suggests that, combined with the recent reorientations of trade and investment rules, there is likely to be sufficient flexibility in the existing regimes ultimately to accommodate the pressures of climate change. Provided that these techniques and innovations continue to be supported by key actors in the regimes, climate change will not overwhelm trade and investment law, but will instead serve as a key catalyst towards further self-reflection and clarification of the place of these regimes in the constellation of international law.

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