

# Trade and Climate Disputes before the WTO: Blocking or Driving Climate Action?

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## I Introduction

The World Trade Organization (WTO) hosts one of the strongest and most sophisticated intergovernmental dispute settlement systems in public international law. The system has compulsory jurisdiction, is governed by rules of law, leads to binding decisions and allows for sanctions in case of non-compliance.<sup>1</sup> The system is heavily relied upon by WTO Members, who have submitted nearly 600 requests for consultation—leading to 350 rulings—since its creation in 1994.<sup>2</sup> One of the main innovations of the WTO dispute settlement system has been an appeals mechanism in the form of the WTO Appellate Body: a standing seven-person body, whose members hold four-year terms, that can hear appeals against the decisions of panels established by the WTO Dispute Settlement Body.<sup>3</sup> After 25 years, it is precisely this feature of the WTO that is under stress. With the United States government persistently blocking new appointments to the Appellate Body due to concerns over judicial overreach,<sup>4</sup> the terms of two of the three remaining members expired in December 2019.

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1 M Matsushita et al, *The World Trade Organization: Law, Practice, and Policy* (3rd edn, OUP 2015) 83.

2 'Dispute Settlement' (WTO) <[www.wto.org/english/tratop\\_e/dispu\\_e/dispu\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/dispu_e.htm)> accessed 19 February 2021.

3 Understanding on Rules and Procedures Governing the Settlement of Disputes (adopted 15 April 1994, entered into force 1 January 1995) 1869 UNTS 401 (DSU) art 17.

4 United States Trade Representative (USTR), 'Report on the Appellate Body of the World Trade Organization' (USTR 2020) <[https://ustr.gov/sites/default/files/Report\\_on\\_the\\_Appellate\\_Body\\_of\\_the\\_World\\_Trade\\_Organization.pdf](https://ustr.gov/sites/default/files/Report_on_the_Appellate_Body_of_the_World_Trade_Organization.pdf)> accessed 19 February 2021.

As a result, the body no longer has the required minimum of three judges.<sup>5</sup> Although a set of WTO Members—including Australia, Brazil, Canada, China and the European Union (EU)—have sought to fill the gap by agreeing on a ‘multi-party interim appeal arbitration arrangement’,<sup>6</sup> whether and how the crisis of the WTO dispute settlement system will be overcome once the COVID-19 pandemic subsides remains uncertain.<sup>7</sup>

This context matters since disputes related to environmental protection and, more recently, also climate change have played a major role in the history of WTO dispute settlement.<sup>8</sup> Already before the creation of the WTO, panels established under the 1947 General Agreement on Tariffs and Trade (GATT)—the predecessor of the current system—had issued rulings on the legality of unilateral trade measures to protect the environment in the *Tuna-Dolphin* disputes.<sup>9</sup> Although the panels ruled against the trade measures—sparking an outcry among environmentalists at the time—the decisions can in hindsight be considered an ‘outlier’ in trade law jurisprudence.<sup>10</sup> Subsequent disputes under the WTO, including notably the *Shrimp-Turtle* rulings,<sup>11</sup> suggest that WTO jurisprudence has indeed become more amenable to integrating environmental concerns.

The balancing of trade and non-trade concerns, however, may be further put to the test with the gradual strengthening of climate action to achieve the long-term goal of the Paris Agreement to keep global warming to well below 2°C

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- 5 A Walker, ‘Trade Disputes Settlement System Facing Crisis’ (*BBC News*, 8 December 2019) <<https://www.bbc.com/news/business-50681431>> accessed 19 February 2021.
- 6 ‘Multi-Party Interim Appeal Arbitration Arrangement Pursuant to Article 25 of the DSU’ (March 2020) (MPIA) <[https://trade.ec.europa.eu/doclib/docs/2020/march/tradoc\\_158685.pdf](https://trade.ec.europa.eu/doclib/docs/2020/march/tradoc_158685.pdf)> accessed 21 July 2020.
- 7 See further the contributions in C Lo, J Nakagawa and T Chen (eds), *The Appellate Body of the WTO and Its Reform* (Springer 2020).
- 8 See E Brown Weiss, JH Jackson and N Bernasconi-Osterwalder (eds), *Reconciling Environment and Trade* (Brill Nijhoff 2008); A Cosbey and PC Mavroidis, ‘Heavy Fuel: Trade and Environment in the GATT/WTO Case Law’ (2014) 23(3) *Review of European Community & International Environmental Law* 288.
- 9 *United States–Restrictions on Import of Tuna (I)* (1991) BISD 39S/155 (unadopted); *United States–Restrictions on Import of Tuna (II)* (1994) 33 ILM 839 (unadopted). For a discussion, see MH Hurlock, ‘The GATT, U.S. Law and the Environment: A Proposal to Amend the GATT in Light of the Tuna/Dolphin Decision’ (1992) 92(8) *Columbia Law Review* 2098.
- 10 Cosbey and Mavroidis (n 8) 289.
- 11 *United States–Import Prohibition of Certain Shrimp and Shrimp Products*, Appellate Body Report, WT/DS58/AB/R (12 October 1998) (*US–Shrimp*); *United States–Import Prohibition of Certain Shrimp and Shrimp Products (Recourse to Article 21.5 by Malaysia)*, Appellate Body Report, WT/DS58/AB/RW (22 October 2001) (*US–Shrimp, Article 21.5*).

above pre-industrial levels and make efforts to stay below 1.5°C.<sup>12</sup> Although an outright clash between international trade law and multilateral climate treaties has yet to materialize, a new generation of trade disputes has emerged, revolving around governmental efforts to boost low-carbon industries.<sup>13</sup> These disputes have reignited a debate on the role of the WTO in promoting environmental and climate change protection. Given the diverging aims of the WTO and the climate change treaties, at least three different perspectives on the role of the multilateral trade regime can be distinguished in this debate. First, WTO rules—as enforced through its dispute settlement system—can be viewed as an obstacle to urgently needed climate action. Second, WTO rules can be seen as necessary for ensuring that measures taken to achieve climate change goals do not amount to disguised protectionism<sup>14</sup> or ‘eco-imperialism’.<sup>15</sup> Third, WTO rules can conceivably address measures that have adverse impacts on both trade and climate change, notably fossil fuel subsidies.<sup>16</sup>

Considering these varying perspectives, this chapter analyzes the prospects of climate change-related disputes before the WTO, shedding light on the extent to which such disputes could hamper or drive international climate action. To offer some necessary context, the chapter begins by recapitulating the relationship between the WTO and the environment in general, and climate change in particular (Section 11). The chapter then moves on to an analysis of the main climate change-related disputes thus far, distinguishing between disputes focused on renewable energy support measures and disputes related

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- 12 Paris Agreement (adopted 12 December 2015, entered into force 4 November 2016) 55 ILM 740 (Paris Agreement) art 2(1)(a).
- 13 K Kulovesi, ‘International Trade Disputes on Renewable Energy: Testing Ground for the Mutual Supportiveness of WTO Law and Climate Change Law’ (2014) 23(3) *Review of European Community & International Environmental Law* 342; M Wu and J Salzman, ‘The Next Generation of Trade and Environment Conflicts: The Rise of Green Industrial Policy’ (2014) 108(2) *Northwestern University Law Review* 401; I Espa and G Marín Durán, ‘Renewable Energy Subsidies and WTO Law: Time to Rethink the Case for Reform beyond *Canada – Renewable Energy/FIT Program*’ (2018) 21(3) *Journal of International Economic Law* 621; L Benjamin, ‘Renewable Energy and Trade: Meeting the Paris Agreement’s Goals through Strategic Compliance’ (2021) 22(1) *Minnesota Journal of Law, Science & Technology* 1.
- 14 MA Young, ‘Trade Measures to Address Environmental Concerns in Faraway Places: Jurisdictional Issues’ (2014) 23(3) *Review of European Community & International Environmental Law* 302, 304.
- 15 CG Gonzalez, ‘Beyond Eco-Imperialism: An Environmental Justice Critique of Free Trade’ (2001) 78(4) *Denver University Law Review* 979.
- 16 C Verkuil et al, ‘Tackling Fossil Fuel Subsidies through International Trade Agreements: Taking Stock, Looking Forward’ (2019) 58(2) *Virginia Journal of International Law* 309.

to biofuels (Section III). Next, the chapter looks at possible future climate change-related disputes, with a focus on border carbon adjustments (BCAs) and fossil fuel subsidies (Section IV). Arguing that the WTO dispute settlement system is not well placed to deal with the precarious balancing act involved in a trade and climate dispute, the chapter then discusses possible ways forward (Section V), before drawing conclusions (Section VI).

## II The WTO, the Environment and Climate Change

### A *Trade and Environment at the WTO*

The WTO was established to further the implementation, administration and operation of multilateral trade agreements. The organization also serves as a forum for further trade negotiations and, through its dispute settlement system, allows Members to resolve disputes with each other.<sup>17</sup> While the main purposes of the WTO, as outlined in the preamble of the 1994 Marrakech Agreement Establishing the WTO, are unequivocally focused on economic growth and expanding trade, the preamble also suggests that achieving its trade-related goals should allow 'for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with [Parties'] respective needs and concerns at different levels of economic development'.<sup>18</sup> However, apart from this preambular reference and two environmental exceptions (see below), environmental considerations hardly feature in the text of the WTO Agreements.

The main multilateral agreement dealing with the trade in goods is the 1994 GATT, which incorporates its 1947 predecessor. The GATT's core rules revolve around non-discrimination. It provides that a country should not discriminate between producers from other countries and domestic producers and that it should treat 'like' imported and domestic products as such ('national treatment').<sup>19</sup> The other main rule is that a country should not discriminate between its trading partners ('most-favoured-nation treatment').<sup>20</sup> Importantly, the GATT contains several exceptions that can save measures deemed to violate

17 Agreement Establishing the World Trade Organization (adopted 15 April 1994, entered into force 1 January 1995) 1867 UNTS 3 art III.

18 *ibid* recital 1.

19 General Agreement on Tariffs and Trade (adopted 15 April 1994, entered into force 1 January 1995) 1867 UNTS 187 art III.

20 *ibid* art I.

the GATT's core disciplines that are taken for legitimate public policy reasons. Specifically, such exceptions apply to measures that are 'necessary to protect human, animal or plant life or health' (Article XX(b) GATT) or 'relating to the conservation of exhaustible natural resources' (Article XX(g) GATT), provided 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' (Article XX *chapeau* GATT).<sup>21</sup> In addition to the GATT, the WTO administers several other agreements with relevance to trade and the environment, including agreements dealing with the trade in services, intellectual property rights, technical standards, health and safety measures, and subsidies.

The creation of the WTO was accompanied by a Ministerial Decision on Trade and Environment, which established a dedicated Committee on Trade and Environment.<sup>22</sup> In 2001, as part of the newly launched Doha Round of trade talks, new negotiations commenced on the relationship between trade obligations under multilateral environmental agreements and trade rules, procedures for information exchange between secretariats of environmental treaties and the WTO, and the reduction of trade barriers for environmental goods and services.<sup>23</sup> However, as the Doha Round largely ground to a halt in the late 2000s, the prospects of these multilateral negotiations on environmental rules being completed are limited.

## B *Trade and Environment Disputes*

With a lack of progress in multilateral negotiations, the relationship between international trade law and the environment has been shaped largely by a series of rulings by WTO panels and the Appellate Body. These disputes have dealt with several key questions that are likely to assume relevance in the context of a climate change-related dispute.

A first question is whether Members can adopt unilateral trade measures to protect resources and the environment beyond areas of national jurisdiction (ie measures with extraterritorial effect).<sup>24</sup> The question played a role in both

21 The language of the *chapeau* of art XX GATT is echoed in the United Nations Framework Convention on Climate Change (adopted 29 May 1992, entered into force 21 March 1994) 1771 UNTS 107 (UNFCCC) art 3(5).

22 WTO, 'Decision on Trade and Environment' LT/UR/D-6/2 (15 April 1994).

23 *ibid* para 31.

24 See D Bodansky, 'What's So Bad about Unilateral Action to Protect the Environment?' (2000) 11(2) *European Journal of International Law* 339; L Ankersmit, GT Davies and J Lawrence, 'Extraterritorial Social and Environmental Concerns and Trade: Pathways to Conflict between the WTO and EU' (2012) 21 *Minnesota Journal of International Law* 14;

the *Tuna–Dolphin* and *Shrimp–Turtle* disputes, as well as the more recent *Seal Products* case.<sup>25</sup> In *Shrimp–Turtle*, a trade measure by the United States motivated by the conservation of sea turtles was at stake. The measure prohibited the import of shrimp that was not caught with ‘turtle excluder devices’, leading to a complaint brought by India, Malaysia, Pakistan and Thailand. Although the Appellate Body did not rule on whether there were any jurisdictional limitations implied by Article XX(g) GATT, it found that there was a ‘sufficient nexus between the migratory and endangered marine populations involved and the United States’.<sup>26</sup> In *Seal Products*, the Appellate Body likewise declined to rule on the jurisdictional limitation question in the context of Article XX(a) GATT on public morals.<sup>27</sup> This leaves open the question of whether a country can adopt trade measures that, for instance, target the carbon footprint of products made in third countries.

A second and closely related question is whether Members are allowed to discriminate against products because of the environmental impacts during the production process (ie measures targeting ‘processes and production methods’ or ‘PPMs’).<sup>28</sup> This debate is generally settled if a measure concerns PPMs are physically traceable in a product, such as trade measures targeting pesticides used in growing apples or products containing carcinogenic asbestos. Such products are deemed not ‘like’ similar products containing pesticides or asbestos. It is less clear whether a measure can be based on PPMs that are not traceable. This would be the case, for example, when a country wants to distinguish between steel products produced with renewable energy or coal. To determine ‘likeness’, WTO dispute settlement bodies commonly carry out an economic assessment of the competitive relationship between two products, focusing on: (1) the properties, nature and quality of the products, (2) their

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Young (n 14); B Cooreman, *Global Environmental Protection through Trade: A Systematic Approach to Extraterritoriality* (Edward Elgar 2017); N Dobson, ‘The EU’s Conditioning of the ‘Extraterritorial’ Carbon Footprint: A Call for an Integrated Approach in Trade Law Discourse’ (2018) 27(1) *Review of European, Comparative & International Environmental Law* 75.

25 *European Communities–Measures Prohibiting the Importation and Marketing of Seal Products*, Appellate Body Report, WT/DS400/AB/R, WT/DS401/AB/R (22 May 2014) (*EC–Seal Products*).

26 *US–Shrimp* (n 11) para 133.

27 *EC–Seal Products* (n 25) para 5.173.

28 See R Howse and D Regan, ‘The Product/Process Distinction: An Illusory Basis for Disciplining ‘Unilateralism’ in Trade Policy’ (2000) 11(2) *European Journal of International Law* 249; S Charnovitz, ‘The Law of Environmental PPMs in the WTO: Debunking the Myth of Illegality’ (2002) 27(1) *Yale Journal of International Law* 59; C Conrad, *Processes and Production Methods (PPMs) in WTO Law: Interfacing Trade and Social Goals* (CUP 2011).

end-uses, (3) consumers' tastes and habits, and (4) the products' tariff classification.<sup>29</sup> As the Appellate Body pointed out in the *Asbestos* case, the health risks of a product (eg asbestos fibres) should be assessed under the first criterion.<sup>30</sup> For other products, the determination of likeness depends primarily on how consumers' tastes and habits are constructed.<sup>31</sup>

A third relevant question is under which conditions a measure can be saved by Article XX GATT. The Appellate Body has followed an 'evolutionary' interpretation of the environmental exceptions of the GATT.<sup>32</sup> This has led to a more expansive reading of the exceptions in Article XX(b) and (g), which were drafted in 1947—long before the advent of environmental and climate change concerns on national policy agendas. Importantly, the Appellate Body has come to interpret the notion of 'exhaustible natural resources' in Article XX(g) to include living resources and clean air.<sup>33</sup> The more difficult question under these sub-paragraphs concerns the link between a trade measure and its environmental goal. Under Article XX(b), the necessity test requires 'weighing and balancing'<sup>34</sup> a series of factors, including whether there is a 'a genuine relationship of ends and means',<sup>35</sup> the proportionality of a measure related to the interests at stake, and the availability of less trade-restrictive alternatives.<sup>36</sup> In comparison, the 'relating to' test under Article XX(g) has been easier to meet.<sup>37</sup> WTO jurisprudence further underlines the importance of procedural requirements in the context of the *chapeau* of the Article XX. This means that in implementing trade measures, countries need to ensure 'basic fairness and due process'.<sup>38</sup> Moreover, they need to have pursued 'serious, across-the-board negotiations' with a view to concluding environmental agreements.<sup>39</sup> And

29 See for instance *European Communities—Measures Affecting Asbestos and Products Containing Asbestos*, Appellate Body Report, WT/DS135/AB/R (12 March 2001) para 101.

30 *ibid* para 116.

31 See E Lydgate, 'Consumer Preferences and the National Treatment Principle: Emerging Environmental Regulations Prompt a New Look at an Old Problem' (2011) 10(2) World Trade Review 165.

32 *US—Shrimp* (n 11) para 130.

33 *US—Shrimp* (n 11) para 131; and *United States—Standards for Reformulated and Conventional Gasoline*, Panel Report, WT/DS2/R (29 April 1996) para 6.37.

34 *Brazil—Measures Affecting Imports of Retreaded Tyres*, Appellate Body Report, WT/DS332/AB/R (3 December 2007) (*Brazil—Retreaded Tyres*) para 182.

35 *ibid* paras 145 and 210.

36 *ibid* para 156.

37 See, for instance, *US—Shrimp* (n 11) para 141.

38 *US—Shrimp* (n 11) paras 180–1.

39 *US—Shrimp* (n 11) para 166.

while a country imposing a measure cannot expect another country to copy the exact same regulation, it can require one that is ‘comparable in effectiveness’.<sup>40</sup>

### C *Trade and Climate Change at the WTO*

While environment-related disputes have been a feature of the WTO since its creation, climate change was hardly discussed within the organization for a long time. Around 2007 this started to change. Delivering a speech at an Informal Trade Ministers Dialogue on Climate Change Issues on the side-lines of the UN Climate Conference in Bali in December, 2007, then-WTO Director-General Pascal Lamy suggested that ‘[t]he WTO tool-box of rules can certainly be leveraged in the fight against climate change, and “adapted” if governments perceive this to be necessary to better achieve their goals’.<sup>41</sup> Lamy’s ‘win-win’ framing of climate and trade policies led to further work by the WTO Secretariat on trade and climate change, including a 2009 report that in detail discussed the physical, economic and legal interlinkages between the two policy areas.<sup>42</sup>

Some WTO Members have also begun to acknowledge the relevance of climate change for trade discussions. For instance, in Doha Round negotiations on the liberalization of environmental goods and services, several WTO Members put forward suggestions to liberalize trade in specific climate-friendly goods and services,<sup>43</sup> whereas others have suggested to identify categories of ‘environmental activities that are useful in combating climate change’.<sup>44</sup> Further discussions were driven by, among others, the emergence of carbon footprint standards and labelling schemes,<sup>45</sup> as well as concerns over the adoption of unilateral trade-related climate change measures, in particular border carbon adjustments (see Section IV).<sup>46</sup> Since the late 2000s, discussions in the

40 *US–Shrimp, Article 21.5 (n 11)* para 144.

41 P Lamy, ‘Doha could deliver double-win for environment and trade’ (Informal Trade Ministers’ Dialogue on Climate Change, Bali, 8–9 December 2007) <[https://www.wto.org/english/news\\_e/sppl\\_e/sppl83\\_e.htm](https://www.wto.org/english/news_e/sppl_e/sppl83_e.htm)> accessed 19 February 2021.

42 United Nations Environment Programme (UNEP) and WTO, *Trade and Climate Change. A Report by the United Nations Environment Programme and the World Trade Organization* (UNEP and WTO 2009).

43 International Centre for Trade and Sustainable Development (ICTSD), ‘Liberalization of Trade in Environmental Goods for Climate Change Mitigation: The Sustainable Development Context’ (2008) 6.

44 Argentina, ‘The Doha Round and Climate Change’ TN/TE/W/74 (23 November 2009) para 7.

45 WTO, ‘Summary Report of the Information Session on Product Carbon Footprint and Labelling Schemes’ WT/CTE/M/49/Add.1 (28 May 2010).

46 See specifically Singapore, ‘Promoting Mutual Supportiveness between Trade and Climate Change Mitigation Actions: Carbon-Related Border Tax Adjustments’ WT/CTE/W/248 (30 March 2011).



Committee on Trade and Environment have regularly addressed climate change.<sup>47</sup> Moreover, climate change-related questions—for instance, dealing with climate change-related technical regulations—have arisen in the context of the WTO Committee on Technical Barriers to Trade.<sup>48</sup> However, as the next section will show, one of the main ways in which the WTO has assumed relevance for climate policy is again through its dispute settlement system.

### III Climate Change-Related Litigation in the WTO: The Story Thus Far

Several scenarios for climate change-related trade disputes can be distinguished. The first scenario is one where a dispute arises over a trade measure in one of the multilateral climate change treaties. Such a dispute would lead to a direct clash between the multilateral climate change and trade regimes. However, given that no such measures are included in the United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol or the Paris Agreement, this scenario is not plausible.<sup>49</sup> A second scenario would concern a dispute over policies and measures explicitly mandated by a climate change treaty. However, also this type of dispute remains hypothetical, with no provision in the climate change treaties obliging countries to adopt specific policies and measures.<sup>50</sup> A third scenario is where a country challenges a trade

47 For instance, WTO, 'Report (2018) of the Committee on Trade and Environment' WT/CTE/25 (10 December 2018) paras 3.1–3.5. As this report shows, even the discussion of climate change in WTO committees remains controversial: 'Several other delegations believed the issue should not be discussed in the [Committee on Trade and Environment] as the issues under the Paris Agreement were delicate and outside the WTO mandate as well as no parallel negotiations should take place outside of the UNFCCC' *ibid* para 3.5. See further MAJ Teehanke, *Trade and Environment Governance at the World Trade Organization Committee on Trade and Environment* (Wolters Kluwer 2020).

48 L Tamiotti and D Ramos, 'Climate Change Mitigation and the WTO Framework' in P Delimatsis (ed), *Research Handbook on Climate Change and Trade Law* (Edward Elgar 2016) 516–17.

49 As noted, the only reference to trade measures in the UNFCCC (n 21) resembles that of the *chapeau* of Article XX GATT. As such, it 'neither condones nor forbids using trade measures'; DM Bodansky, 'The United Nations Framework Convention on Climate Change: A Commentary' (1993) 18(2) *Yale Journal of International Law* 451, 505. The Kyoto Protocol merely reaffirms the commitment to 'minimize adverse effects on ... international trade' in the pursuit of its objectives. Kyoto Protocol to the United Nations Framework Convention on Climate Change (adopted 11 December 1997, entered into force 16 February 2005) 37 ILM 22 (Kyoto Protocol) art 2(3).

50 The Kyoto Protocol (n 49) art 2(1)(a), contains an illustrative list of policies and measures, but does not mandate their adoption. Similarly, the Paris Agreement (n 12) art 4(2),

measure adopted by another country to achieve its climate goals. As we will see in this section, it is this scenario that has played out in several disputes before the WTO. However, before discussing this type of dispute in more detail, a final scenario should be mentioned, namely that of a country challenging a measure that hampers the clean energy transition. One example of such a possible dispute—namely a challenge of fossil fuel subsidies—will be discussed in Section IV.

The types of policies and measures that can be adopted in the third scenario can vary. They include measures such as carbon taxes, emissions trading systems, fuel efficiency standards, greenhouse gas emissions standards, carbon labels, and so on. These types of measures raise some of the same issues that have emerged in the WTO's past trade and environment jurisprudence, including on extraterritoriality, PPMs and the scope of Article XX GATT.<sup>51</sup> However, the 'new era of climate change-related disputes at the WTO'<sup>52</sup> has thus far rather concerned a different set of 'green industrial policy' measures that have raised new questions rather than revisited long-standing debates.<sup>53</sup> The remainder of this section discusses the main disputes in this regard, related to (1) renewable energy support measures and (2) biofuels.

### A Renewable Energy Disputes

The first set of WTO disputes has focused on renewable energy support measures.<sup>54</sup> Support for renewable energy—including electricity produced from renewable energy sources and the development of renewable energy technologies such as solar panels and wind turbines—is provided by some of the major trading nations, including the EU, the United States, China, India and Japan.<sup>55</sup> Such support has however led to a series of trade disputes.<sup>56</sup>

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requires its Parties to submit five-yearly nationally determined contributions, but does not specify what policies Parties should implement.

51 Or, in the case of standards, similar questions raised in the context of trade and environment disputes on technical regulations. See for instance *United States—Measures concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, Appellate Body Report, WT/DS381/AB/R (16 May 2012).

52 D Bodansky, J Brunnée and L Rajamani, *International Climate Change Law* (OUP 2017) 342.

53 Wu and Salzman (n 13).

54 See generally JI Lewis, 'The Rise of Renewable Energy Protectionism: Emerging Trade Conflicts and Implications for Low Carbon Development' (2014) 14(4) *Global Environmental Politics* 10.

55 M Taylor, 'Energy Subsidies: Evolution in the Global Energy Transformation to 2050' (*International Renewable Energy Agency* 2020) 31.

56 This section will only discuss the WTO disputes that have gone past the consultations stage. The latter includes *China—Measures Concerning Wind Power Equipment* (DS419),

In a first dispute, *Canada–Renewable Energy*, the Appellate Body found that renewable energy support measures by the government of the Canadian province Ontario contravened multilateral trade rules.<sup>57</sup> At stake was a feed-in tariff—a fixed higher rate paid to green electricity producers compared to fossil fuel-based energy generation—which was conditional on the minimum use of local content (eg solar panels produced in Ontario). The measure was challenged by the EU and Japan, who argued that the measure violated Article III:4 GATT and Article 2.1 of the Agreement on Trade-Related Investment Measures (TRIMs Agreement) on local content requirements, as well as Articles 3.1(b) and 3.2 of the Agreement on Subsidies and Countervailing Measures (ASCM) on prohibited subsidies. The Panel and Appellate Body concluded that the local content requirements violated the GATT and TRIMs Agreement, but did not come to any finding on whether the measure constituted a prohibited subsidy under Article 3 ASCM. Specifically, the Appellate Body found itself unable to complete an analysis to determine that a benefit had been conferred, thus concluding that it could not be established whether the measure was a ‘subsidy’ in the context of the ASCM.<sup>58</sup>

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*European Union and Certain Member States–Certain Measures Affecting the Renewable Energy Sector* (DS452) and *United States–Certain Measures Related to Renewable Energy* (DS563). In addition to the disputes that have reached the WTO, there have also been disputes related to national trade remedies (eg anti-dumping and countervailing duties) against clean energy imports. See J Kasteng, ‘Trade Remedies on Clean Energy: A New Trend in Need of Multilateral Initiatives’ (ICTSD and World Economic Forum 2013). Although these cases will not be discussed here, it is notable that one such case—involving countervailing duties imposed by the United States against a range of products, including solar panels and wind turbines, from China—led to a WTO dispute. See *United States–Countervailing Duty Measures on Certain Products from China*, Appellate Body Report, WT/DS437/AB/R (18 December 2014). For an analysis, see R Brewster, C Brunel and AM Mayda, ‘Trade in Environmental Goods: A Review of the WTO Appellate Body’s Ruling in *US–Countervailing Measures (China)*’ (2016) 15(2) *World Trade Review* 327.

57 *Canada–Certain Measures Affecting the Renewable Energy Generation Sector*, Appellate Body Report, WT/DS412/AB/R (24 May 2013) (*Canada–Renewable Energy*). See A Cosbey and PC Mavroidis, ‘A Turquoise Mess: Green Subsidies, Blue Industrial Policy and Renewable Energy: The Case for Redrafting the Subsidies Agreement of the WTO’ (2014) 17(1) *Journal of International Economic Law* 11; L Rubini, ‘“The Good, the Bad, and Ugly.” Lessons on Methodology in Legal Analysis from the Recent WTO Litigation on Renewable Energy Subsidies’ (2014) 48(5) *Journal of World Trade* 895; and S Charnovitz and C Fischer, ‘*Canada – Renewable Energy*: Implications for WTO Law on Green and Not-so-Green Subsidies’ (2015) 14(2) *World Trade Review* 177.

58 *Canada–Renewable Energy* (n 57) para 5.246. The Appellate Body analysis suggests that a distinction should be made between a government intervening in an existing market and a government creating a market, in this case for wind- or solar-based electricity (*Canada–Renewable Energy* (n 57) paras 5.188–5.190 and 5.227).

A subsequent complaint by the United States concerning India's Jawaharlal Nehru National Solar Mission also led to a ruling striking down a renewable energy support measure due to the use of local content requirements (*India–Solar Cells*).<sup>59</sup> Again, the violation concerned Article III:4 GATT and Article 2.1 TRIMS Agreement. In this dispute, India sought to justify its measure by invoking two exceptions contained in Article XX GATT—related to measures necessary to 'secure compliance with laws or regulations' and 'products in general or local short supply'—but neither of these defences was accepted by the Appellate Body.<sup>60</sup>

The third dispute reversed the roles of complainant and defendant, with India challenging a set of subnational renewable energy support measures in the United States (in the states of California, Connecticut, Delaware, Michigan, Montana, Minnesota and Washington) that included local content requirements, once again invoking Article III:4 GATT, Article 2.1 TRIMS Agreement and Article 3 ASCM (*US–Renewable Energy*).<sup>61</sup> Also in this case the Panel sided with the complainant, finding that the use of local content requirements violated the GATT and TRIMS Agreement.

A few observations can be made on the basis of these cases. First, in none of the cases was the measure at hand deemed a 'subsidy' under the ASCM. In other words, the support itself was not found to be inconsistent with WTO law. However, the dispute settlement bodies found the use of discriminatory local content requirements problematic. Such requirements may help garner domestic support for building a green economy, but the jury on their effectiveness is still out.<sup>62</sup> Although subsidies using local content requirements are prohibited under the ASCM,<sup>63</sup> following the Appellate Body ruling in *Canada–Renewable Energy*, the United States did not refer to the ASCM in its request for establishing a panel in *India–Solar Cells*,<sup>64</sup> whereas the Panel in

59 *India–Certain Measures Relating to Solar Cells and Solar Modules*, Appellate Body Report, WT/DS456/AB/R (16 September 2016) (*India–Solar Cells*). See V Jha, 'Political Economy of Climate, Trade and Solar Energy in India' (2017) 9(2) *Trade, Law & Development* 255.

60 *India–Solar Cells* (n 59) para 5.154.

61 *United States–Certain Measures Relating to the Renewable Energy Sector*, Panel Report, WT/DS510/R (27 June 2019) (*US–Renewable Energy*). The Panel ruling is being appealed, but this appeal affected by the stasis at the Appellate Body.

62 J-C Kuntze and T Moerenhout, 'Local Content Requirements and the Renewable Energy Industry – A Good Match?' (ICTSD 2013).

63 Agreement on Subsidies and Countervailing Measures (adopted 15 April 1994, entered into force 1 January 1995) 1869 UNTS 14 (ASCM) art 3.

64 *India–Certain Measures Relating to Solar Cells and Solar Modules*, Panel Report, WT/DS456/R (24 February 2016) (*India–Solar Cells*, Panel Report) fn 1.

*US–Renewable Energy* exercised ‘judicial economy’ regarding India’s claims under the ASCM.<sup>65</sup> As a result, the status of renewable energy support measures under the ASCM—including that of measures that do not require the use of local content—remains uncertain.<sup>66</sup>

Second, and perhaps surprisingly, the environmental exceptions of Article XX GATT were not invoked in any of the disputes. India did invoke the UNFCCC, but only to argue that it was an international instrument with which compliance was necessary under Article XX(d) GATT.<sup>67</sup> It remains unclear what would have happened if India had invoked Article XX(b) or (g) GATT to argue that the support—including the use of local content requirements—was motivated by its commitments under the climate treaties or, more specifically, its nationally determined contribution under the Paris Agreement (which it had submitted while the case was ongoing).<sup>68</sup> Nevertheless, the Appellate Body in *Canada–Renewable Energy* acknowledged—without however mentioning the imperative of climate change—that ‘[f]ossil energy resources are exhaustible, and thus fossil energy needs to be replaced progressively if electricity supply is to be guaranteed in the long term’, implying that a defence under Article XX(g) may have a chance of success.<sup>69</sup>

## B Biofuel Disputes

Another group of disputes, several involving the EU,<sup>70</sup> has concerned measures supporting the biofuels industry. Biofuels can be made using plant materials (eg sugar cane, soybeans, palm oil) or from organic waste. The uptake of biofuels such as biodiesel and bioethanol can help reduce the reliance on fossil fuels, particularly in the transport sector. However, some types of (first-generation or

65 *US–Renewable Energy* (n 61) para 7.368.

66 *Espa and Marín Durán* (n 13) 637–43.

67 *India–Solar Cells*, Panel Report (n 64) paras 7.271–7.272.

68 India’s nationally determined contribution includes the target of ‘40 percent cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030’, and its National Solar Mission is mentioned specifically as a mitigation strategy (‘India’s Intended Nationally Determined Contribution: Working towards Climate Justice’ (UNFCCC) 29 and 35 <<https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/India%20First/INDIA%20INDC%20TO%20UNFCCC.pdf>> accessed 19 February 2021).

69 *Canada–Renewable Energy* (n 57) para 5.186. See Charnovitz and Fischer (n 57) 207.

70 The EU is not the only defendant, however. Argentina has requested consultations with Peru regarding anti-dumping measures taken by the latter against its biodiesel imports. See *Peru—Anti-Dumping and Countervailing Measures on Biodiesel from Argentina*, Request for Consultations by Argentina, WT/DS572/1, G/L/1285 G/SCM/D122/1, G/ADP/D129/1 (5 December 2018).

conventional) biofuels may affect food production. Moreover, biofuel production may further lead to negative environmental impacts—including on climate change—through inducing direct or indirect land-use change (eg when biofuel production drives deforestation).<sup>71</sup>

With its 2009 Renewable Energy Directive, the EU sought to encourage the uptake of biofuels in transport by requiring its Member States to ‘ensure that the share of energy from renewable sources in all forms of transport in 2020 is at least 10% of the final consumption of energy in transport’.<sup>72</sup> While the directive was motivated by climate concerns, it also was partly driven by the desire to boost the emerging biofuels industry in Europe.<sup>73</sup> The directive led to a significant increase of consumption of biodiesel in the EU, but the growth of the European industry was overshadowed by sharply rising imports, particularly from Argentina and Indonesia.<sup>74</sup> To encourage their own biofuel industries, these countries had imposed higher export taxes on the raw materials used for producing biofuels (soybeans in Argentina, palm oil in Indonesia) than on processed biofuels. Following complaints from its own biofuels industry, the EU started using trade remedies against Argentina and Indonesia in the form of anti-dumping duties.<sup>75</sup>

The anti-dumping duties were challenged, first by Argentina, followed by Indonesia. In both cases, the WTO dispute settlement bodies ruled in favour of the complainants.<sup>76</sup> Specifically, the Appellate Body in *EU—Biodiesel (Argentina)* ruled that the methodology used by the European Commission to determine the duties was inconsistent with its obligations under the WTO

71 BD Solomon, ‘Biofuels and Sustainability’ (2010) 1185 *Annals of the New York Academy of Sciences* 119.

72 Parliament and Council Directive (EC) 2009/28/EC on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC [2009] OJ L140/16 art 3(4).

73 C Fischer and T Meyer, ‘Baptists and Bootleggers in the Biodiesel Trade: *EU—Biodiesel (Indonesia)*’ (2020) 19(2) *World Trade Review* 297, 299.

74 *ibid* 300–301.

75 Council Implementing Regulation (EU) No 1194/2013 of 19 November 2013 imposing a definitive anti-dumping duty and collecting definitively the provisional duty imposed on imports of biodiesel originating in Argentina and Indonesia [2013] OJ L315/2.

76 *European Union—Anti-Dumping Measures on Biodiesel from Argentina*, Appellate Body Report, WT/DS473/AB/R (6 October 2016); *European Union—Anti-Dumping Measures on Biodiesel from Indonesia*, Panel Report, WT/DS480/R (25 January 2018). On the Argentina dispute, see MA Crowley and JA Hillman, ‘Slamming the Door on Trade Policy Discretion? The WTO Appellate Body’s Ruling on Market Distortions and Production Costs in *EU—Biodiesel (Argentina)*’ (2018) 17(2) *World Trade Review* 195. On the Indonesia dispute, see Fischer and Meyer (n 73).

Anti-Dumping Agreement. Given the similarities in the two cases, the Panel in *EU—Biodiesel (Indonesia)* closely followed the Appellate Body's ruling. Accordingly, the EU terminated its anti-dumping duties in 2018.<sup>77</sup>

The two cases offer an indication of the rising importance of national trade remedies (ie anti-dumping and countervailing duties) in the context of climate and trade disputes. Even after the European Commission was thwarted in its attempt to counter Argentina and Indonesia's support through anti-dumping measures, it imposed countervailing duties against both countries in 2019, arguing that the support provided through the differential export tax constituted a subsidy.<sup>78</sup>

While these measures have not been challenged by either Argentina or Indonesia,<sup>79</sup> another measure by the EU has moved to the Panel stage. When the EU recast its Renewable Energy Directive in 2018, it introduced new sustainability criteria that particularly address the risks of indirect land-use change (ILUC) posed by biofuels.<sup>80</sup> The directive specifies that, by the end of 2030, 'high indirect land-use change-risk biofuels, bioliquids or biomass fuels' can no longer count towards the renewable energy target for transport.<sup>81</sup> A separate regulation specifies criteria for ILUC risk, which suggest that palm oil biofuels should be considered to pose a high ILUC risk.<sup>82</sup> This was confirmed by a 2019 report by the European Commission that suggested that '[p]alm oil ... qualifies as high ILUC-risk feedstock for which a significant expansion into land with high-carbon stock is observed'.<sup>83</sup> Indonesia responded by requesting

77 Commission Implementing Regulation (EU) 2018/1570 terminating the proceedings concerning imports of biodiesel originating in Argentina and Indonesia and repealing Implementing Regulation (EU) No 1194/2013 [2018] OJ L262/40.

78 Commission Implementing Regulation (EU) 2019/244 of 11 February 2019 imposing a definitive countervailing duty on imports of biodiesel originating in Argentina [2019] OJ L40/1; and Commission Implementing Regulation (EU) 2019/1344 of 12 August 2019 imposing a provisional countervailing duty on imports of biodiesel originating in Indonesia [2019] OJ L212/1.

79 Fischer and Meyer (n 73) 309–10.

80 Parliament and Council Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources (recast) [2018] OJ L328/82.

81 *ibid* art 26(2).

82 Commission Delegated Regulation (EU) 2019/807 of 13 March 2019 supplementing Directive (EU) 2018/2001 of the European Parliament and of the Council as regards the determination of high indirect land-use change-risk feedstock for which a significant expansion of the production area into land with high carbon stock is observed and the certification of low indirect land-use change-risk biofuels, bioliquids and biomass fuels [2019] OJ L133/1 art 3 and Annex.

83 Commission (EU) 'Report on the status of production expansion of relevant food and feed crops worldwide' COM(2019) 142 final, 13 March 2019, 19.

consultations at the WTO, arguing that the EU measures—including also a fuel tax in France—contravene the WTO Agreement on Technical Barriers to Trade, the GATT and the ASCM.<sup>84</sup> The case will likely raise important questions about extraterritoriality and the scope of the WTO's environmental exceptions.<sup>85</sup>

#### IV Prospects for New Climate Change-Related Cases

Although the focus of trade disputes has thus far been on measures through which countries have sought to boost the international competitiveness of their green industries, future disputes may also take on a different character. First, it is possible that the future adoption of border carbon adjustments or a similar trade measure targeting product's carbon footprint (ie the greenhouse gases emitted during the production process) may be challenged. As noted above, such a dispute would share several features with the classic trade and environment disputes, and hence raise similar questions to those that arose in disputes such as *Shrimp–Turtle*. Second, it may be possible to use WTO dispute settlement to tackle measures that may be both trade-distortive and environmentally harmful, such as fossil fuel subsidies. This section will discuss these possible disputes in turn.

##### A *A Dispute on Border Carbon Adjustments*

Parties to the Paris Agreement enjoy wide discretion with regard to the ambition of their climate policy as well as the measures they adopt to achieve their goals.<sup>86</sup> Arguably, this discretion reduces the chances of a direct clash with multilateral trade rules. Yet countries' varying levels of ambition may also lead to calls for trade measures to prevent 'carbon leakage' (where the

84 *European Union–Certain Measures Concerning Palm Oil and Oil Palm Crop-based Biofuels*, Request for Consultations by Indonesia, WT/DS593/1, G/L/1348 G/TBT/D/52, G/SCM/D128/1 (16 December 2019). Another request for consultations has been filed by Malaysia: *European Union and Certain Member States–Certain Measures Concerning Palm Oil and Oil Palm Crop-based Biofuels*, Request for Consultations by Malaysia, WT/DS600/1, G/L/1384, G/TBT/D/54, G/SCM/D131/1 (19 January 2021).

85 See S Mayr, B Hollaus and V Madner, 'Palm Oil, the RED II and WTO Law: EU Sustainable Biofuel Policy Tangled up in Green?' (2021) *Review of European, Comparative & International Environmental Law* (forthcoming); A Mitchell and D Merriman, 'Indonesia's WTO Challenge to the European Union's Renewable Energy Directive: Palm Oil & Indirect Land-Use Change' (2020) 12(2) *Trade, Law & Development* <[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3665463](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3665463)> accessed 19 February 2021.

86 Paris Agreement (n 12) art 4.



introduction of climate policies leads to a shift in production and associated greenhouse gas emissions to jurisdictions with no or less stringent policies in place),<sup>87</sup> to level the competitive playing field and to counter free-rider behaviour.<sup>88</sup>

The main response so far to the risk of carbon leakage in jurisdictions that price carbon through an emissions trading system—notably the EU<sup>89</sup>—has been to distribute greenhouse gas emissions allowances for free. However, due to persisting concerns associated with such free allocation,<sup>90</sup> and the anticipated decrease of free allocation for some sectors,<sup>91</sup> alternative measures have been proposed in the form of border carbon adjustments.<sup>92</sup> BCAs are charges levied on traded products on the basis of their carbon content, which can in principle be associated with an emissions trading system, a carbon tax and conceivably also other forms of carbon constraints (eg standards and regulations). In the late 2000s, such measures came to the forefront of climate policy discussions in both the EU and the United States, although no BCA was ever adopted in either jurisdiction.<sup>93</sup> Various reasons can be cited for the reluctance of policy-makers to adopt BCAs. The measure can be difficult to administer, as it requires access to consistent and verifiable information about the

87 J Ward et al, 'Carbon Leakage: Theory, Evidence and Policy Design' (Partnership for Market Readiness 2015) 14–15.

88 See W Nordhaus, 'Climate Clubs: Overcoming Free-Riding in International Climate Policy' (2015) 105(4) *American Economic Review* 1339.

89 Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 Establishing a Scheme for Greenhouse Gas Emissions Allowance Trading Within the Community and Amending Council Directive 96/61/EC [2003] OJ L275/32 (as amended) art 10b.

90 Free allocation leads to windfall profits for industries as well as a distorted carbon price signal. See S de Bruyn et al, 'Calculation of Additional Profits of Sectors and Firms from the EU ETS 2008–2015' (CE Delft 2016); K Neuhoff et al, 'Inclusion of Consumption of Carbon Intensive Materials in Emissions Trading: An Option for Carbon Pricing Post-2020' (Climate Strategies 2016) 3. Free allocation also raises WTO questions in its own right. See L Rubini and I Jegou, 'Who'll Stop the Rain: Allocating Emissions Allowances for Free: Environmental Policy, Economics, and WTO Subsidy Law' (2012) 1(2) *Transnational Environmental Law* 325.

91 Directive 2003/87/EC (n 89) art 10b(4).

92 For an early call, see F Biermann and R Brohm, 'Implementing the Kyoto Protocol Without the USA: The Strategic Role of Energy Tax Adjustments at the Border' (2005) 4(3) *Climate Policy* 289.

93 H van Asselt and T Brewer, 'Addressing Competitiveness and Leakage Concerns in Climate Policy: An Analysis of Border Adjustment Measures in the US and the EU' (2010) 38(1) *Energy Policy* 42.

carbon footprint of traded products.<sup>94</sup> Furthermore, the extent to which a BCA helps reduce carbon leakage depends on its scope and coverage.<sup>95</sup> Perhaps most importantly, as a unilaterally imposed trade measure with extraterritorial implications, policy-makers tend to view BCAs as politically contentious. Nevertheless, calls for BCAs have not subsided following the adoption of the Paris Agreement.<sup>96</sup> Most notably, the announcement by the new European Commission to suggest a 'carbon border adjustment mechanism' as part of its European Green Deal proposal<sup>97</sup> underscores that BCAs may at long last move from theory to practice. This raises the question of what would happen in case of a WTO dispute on BCAs.<sup>98</sup>

As always with trade disputes, much will depend on the actual design and implementation of a measure. Although space constraints do not allow for a detailed discussion of all relevant legal questions, a few points can be made regarding the likely WTO consistency of BCAs.

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- 94 T Houser et al, *Leveling the Carbon Playing Field: International Competition and U.S. Climate Policy Design* (Peterson Institute for International Economics and World Resources Institute 2008) 33–4.
- 95 F Branger and P Quirion, 'Would Border Carbon Adjustments Prevent Carbon Leakage and Heavy Industry Competitiveness Losses? Insights from a Meta-Analysis of Recent Economic Studies' (2014) 99 *Ecological Economics* 29.
- 96 MA Mehling et al, 'Designing Border Carbon Adjustments for Enhanced Climate Action' (2019) 113(3) *American Journal of International Law* 433, 438.
- 97 Commission (EU) 'The European Green Deal' (Communication) COM(2019) 640 final, 11 December 2019, 5. The measure is envisaged to come into force on 1 January 2023. See European Council, 'Special Meeting of the European Council (17, 18, 19, 20 and 21 July 2020), Conclusions' EUCO 10/20 (21 July 2020) para 147.
- 98 A wealth of literature has looked into this question, including: J de Cendra, 'Can Emissions Trading Schemes Be Coupled with Border Tax Adjustments? An Analysis Vis-à-Vis WTO Law' (2006) 15(2) *Review of European Community & International Environmental Law* 131; R Ismer and K Neuhoﬀ, 'Border Tax Adjustment: A Feasible Way to Support Stringent Emission Trading' (2007) 24(2) *European Journal of Law and Economics* 137; J Pauwelyn, 'U.S. Federal Climate Policy and Competitiveness Concerns: The Limits and Options of International Trade Law' (Nicholas Institute for Environmental Policy Solutions 2007); L Tamiotti, 'The Legal Interface between Carbon Border Measures and Trade Rules' (2011) 11(5) *Climate Policy* 1202; J Hillman, 'Changing Climate for Carbon Taxes: Who's Afraid of the WTO?' (German Marshall Fund of the United States 2013); K Holzer, *Carbon-Related Border Adjustment and WTO Law* (Edward Elgar 2014); Mehling et al (n 96); U Will, *Climate Border Adjustments and WTO Law* (Brill 2019). The Commission's proposal has already been discussed in the WTO's Market Access Committee: 'Brexit, EU's Carbon Border Adjustment Mechanism Take Centre Stage at Market Access Committee' (WTO, 16 November 2020) <[https://www.wto.org/english/news\\_e/news20\\_e/mark\\_16nov20\\_e.htm](https://www.wto.org/english/news_e/news20_e/mark_16nov20_e.htm)> accessed 19 February 2021.

First, a measure would likely be found to violate the national treatment obligation in Article III GATT if it would not ensure that ‘like’ domestic products face similar carbon constraints. This raises the question of whether products with a different carbon footprint—eg steel produced using coal and steel made with renewable energy—can be considered ‘like’. Referring back to the criteria for ‘likeness’ outlined in the *Asbestos* case, Mehling and colleagues note that ‘unless it can be demonstrated that consumers treat products with high and low carbon intensities differently (or are likely to do so), or other criteria assume a greater role in future jurisprudence, low-carbon and carbon-intensive products will probably be considered “like products”’.<sup>99</sup> This could mean that a BCA would violate the national treatment obligation under Article III:2 GATT. However, a BCA arguably could also be considered an ‘internal regulation’ under Article III:4 GATT, in which case the primary requirement would be that it is origin-neutral (ie any differential treatment is based on the carbon footprint of a product, rather than its country of origin).<sup>100</sup>

Second, a measure that differentiates between trade partners based on country-specific considerations such as the type (or stringency) of domestic climate policy in place or participation in an international climate agreement risks violating the most-favoured-nation rule in Article I GATT.<sup>101</sup> This risk would be reduced if a measure accommodates the circumstances of third countries, particularly developing countries, by taking into account the climate efforts of trade partners in the calculation of the BCA.<sup>102</sup>

Third, even if a BCA is considered to violate one of the substantive obligations of the GATT, it might still be saved by a defence under Article XX GATT. For that purpose, it would need fall under one of the substantive exceptions, whilst also meeting the conditions of the *chapeau* of Article XX. With regard to one of the substantive exceptions, Article XX(b), a BCA that is likely to be effective in tackling carbon leakage—or for which it can otherwise be shown that it will lead to emission reductions—would probably fall within the substantive scope of the environmental exceptions of Article XX. Although, as discussed in Section III, no climate change-related dispute has invoked these exceptions,

99 Mehling et al (n 96) 461. However, it can also be argued that the carbon embodied in a product should be considered part of the product’s physical property; see N Eisen, ‘Carbon Emissions as a Physical Property: Ontological Approaches to the WTO *Like Products* Debate’ (2019) 51(3) *New York University Journal of International Law & Policy* 871.

100 Mehling et al (n 96) 462.

101 Mehling et al (n 96) 474.

102 Mehling et al (n 96) 477–8. This would also strengthen the measure in light of international climate change law, in line with the principle of ‘common but differentiated responsibilities and respective capabilities’ (Mehling et al (n 96) 472–3).

the Panel in *Brazil–Taxation* found that ‘the reduction of [carbon dioxide] emissions is one of the policies covered by subparagraph (b) of Article xx, given that it can fall within the range of policies that protect human life or health’.<sup>103</sup> Ensuring that a BCA focuses on the most leakage-prone sectors (ie sectors that are energy-intensive and trade-exposed) such as cement and steel would further strengthen the link between the measure and its environmental objective,<sup>104</sup> helping to establish ‘a genuine relationship of ends and means’ between the two.<sup>105</sup> In this regard, the Appellate Body in *Brazil–Retreaded Tyres* acknowledged the particular nature of a climate change-related dispute, noting that ‘the results obtained from certain actions—for instance, measures adopted in order to attenuate global warming and climate change ... can only be evaluated with the benefit of time’.<sup>106</sup> Although there may still be some uncertainty about whether a BCA could meet the other hurdles associated with an Article xx(b) defence, passing the Article xx(g) test of ‘relating to the conservation of exhaustible natural resources’ is generally considered to be feasible.<sup>107</sup>

Fourth, however, the BCA would still need to meet the requirements of the *chapeau* of Article XX GATT. As outlined above, to save the measure its design and implementation of BCAs would need to follow principles of basic fairness and due process,<sup>108</sup> and provide for ‘sufficient flexibility to take into account the specific conditions prevailing in any exporting Member’.<sup>109</sup> If the BCA process allows another country to provide input into key decisions affected the imposition of a BCA, or if appeals to such decisions are possible, it is more likely that it will meet this requirement.<sup>110</sup> Related to this, if a country conducts BCA-specific negotiations with affected countries before introducing the BCA, it would help to meet the criterion of ‘serious, across-the-board negotiations’.<sup>111</sup>

The outcome of a possible dispute on BCAs remains uncertain. Although it is possible to design a BCA to be WTO-consistent in theory, in practice the

103 *Brazil–Certain Measures Concerning Taxation and Charges*, Panel Report, WT/DS472/R, WT/DS497/R (30 August 2017) para 7.880.

104 Mehling et al (n 96) 474.

105 *Brazil–Retreaded Tyres* (n 34) para 145.

106 *Brazil–Retreaded Tyres* (n 34) para 151.

107 See for instance Holzer (n 98) 150–7; Will (n 98) 219; Mehling et al (n 96) 468.

108 *US–Shrimp* (n 11) para 181.

109 *US–Shrimp, Article 21.5* (n 11) para 149.

110 Mehling et al (n 96) 468.

111 *US–Shrimp* (n 11) para 166. See Mehling et al (n 96) 469.

drafting of such measures involves difficult political trade-offs. As such, the legality of any BCA remains to be seen until such a measure is actually adopted.

### B *A Dispute on Fossil Fuel Subsidies*

While WTO disputes so far have targeted various renewable energy support measures, subsidies for dirty energy have remained unscathed.<sup>112</sup> According to the Organisation for Economic Co-operation and Development (OECD) and the International Energy Agency (IEA), support for fossil fuels amounted to US\$ 478 billion in 2019.<sup>113</sup> Moreover, notwithstanding calls for a 'green recovery', support for fossil fuels eclipsed clean energy funding in the wake of COVID-19.<sup>114</sup> Support for fossil fuel production and consumption drives greenhouse gas emissions and results in carbon lock-in.<sup>115</sup> Moreover, fossil fuel subsidies prevent the uptake of renewable energy<sup>116</sup> and lead to adverse impacts on public health.<sup>117</sup> Importantly, fossil fuel subsidies can have effects on international trade. These effects can be direct, strengthening the competitiveness of the subsidized producer, or indirect, with passthrough effects leading to downstream producers using subsidized inputs gaining a competitive advantage.<sup>118</sup> This again raises the question of what could happen in case of a WTO complaint against a fossil fuel subsidy.<sup>119</sup> Although disputes on renewable energy

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- 112 Steenblik and colleagues document only one case that came close to a formal dispute, and only one case in which a company sought to impose an anti-dumping or countervailing duty against fossil fuel subsidies; R Steenblik, J Sauvage and C Timiliotis, 'Fossil Fuel Subsidies and the Global Trade Regime' in J Skovgaard and H van Asselt (eds), *The Politics of Fossil Fuel Subsidies and Their Reform* (CUP 2018) 127.
- 113 'Governments Should Use Covid-19 Recovery Efforts as an Opportunity to Phase out Support for Fossil Fuels, Say OECD and IEA' (OECD, 5 June 2020) <<https://www.oecd.org/environment/governments-should-use-covid-19-recovery-efforts-as-an-opportunity-to-phase-out-support-for-fossil-fuels-say-oecd-and-ia.htm>> accessed 19 February 2021.
- 114 See <<https://www.energypolicytracker.org/>> accessed 19 February 2021.
- 115 See, for instance, IEA, *Energy and Climate Change: World Energy Outlook Special Report* (2015); R Stefanski, 'Into the Mire: A Closer Look at Fossil Fuel Subsidies' (University of Calgary 2016); J Jewell et al, 'Limited Emission Reductions from Fuel Subsidy Removal Except in Energy-Exporting Regions' (2018) 554 *Nature* 229; P Erickson et al, 'Why Fossil Fuel Produce Subsidies Matter' (2020) 578 *Nature* E1.
- 116 R Bridle and L Kitson, 'The Impact of Fossil-Fuel Subsidies on Renewable Electricity Generation' (International Institute for Sustainable Development (IISD) 2014) 18.
- 117 'Fossil Fuel Subsidies and Health' (*Health and Environment Alliance*, 2017) <<http://www.env-health.org/wp-content/uploads/2018/06/fossil-fuel-subsidies-and-health-briefing.pdf>> accessed 19 February 2021.
- 118 T Moerenhout and T Irschlinger, 'Exploring the Trade Impacts of Fossil Fuel Subsidies' (IISD 2020).
- 119 The likelihood of such a dispute materializing does not solely depend on the chances of a successful challenge. Strategic and political considerations may also affect a Member's

support measures have thus far revolved around Article III:4 GATT and Article 2.1 TRIMS Agreement, the focus here is on the WTO's main subsidy rules as laid down in the ASCM.<sup>120</sup>

A first question that would arise under the ASCM is whether a measure can be considered a 'subsidy'. It therefore would need to be shown that there has been a 'financial contribution' by a government or 'income or price support', and that this has led to the conferral of a 'benefit'.<sup>121</sup> Some measures clearly amount to a financial contribution, such as direct financial support to a fossil fuel company in the form of a grant or a loan, or government funding for a railroad that is solely aimed at transporting coal from a mine to a port. However, for other measures, such as tax breaks for fossil fuel producers, it is necessary to determine whether there were 'objective reasons' for the preferential tax treatment, as well as a benchmark tax treatment against which these reasons can be compared.<sup>122</sup> Demonstrating that a benefit has been conferred may likewise be straightforward for some measures, for instance if a subsidy consists of a favourable loan to a fossil fuel producer or if a subsidy results in consumers not paying the market price for certain fuels.<sup>123</sup> However, proving a consumption subsidy—the most prevalent type of subsidy, usually consisting of government-regulated market prices for fuels used for consumption—confers a benefit can be hard to establish in fossil fuel producing countries 'if the producing country provides fuel at above production cost, but below the international market price'.<sup>124</sup>

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decision to challenge another Member's subsidy (or refrain from doing so). For instance, given that fossil fuel subsidies are provided by countries across the world, Members may decide not to challenge each other's fossil fuel subsidies for fear of retaliation. See further D De Bièvre, I Espa and A Poletti, 'No Iceberg in Sight: on the Absence of WTO Disputes Challenging Fossil Fuel Subsidies' (2017) 17(3) *International Environmental Agreements: Politics, Law and Economics* 411; and T Meyer, 'Explaining Energy Disputes at the World Trade Organization' (2017) 17(3) *International Environmental Agreements: Politics, Law and Economics* 391.

120 As noted above, the main reason why the renewable energy disputes have been struck down in WTO dispute settlement is their use of local content requirements. Although the use of local content requirements is widespread in the fossil fuel sector, these are not necessarily linked to fossil fuel *subsidies*. See generally S Tordo et al, 'Local Content Policies in the Oil and Gas Sector' (World Bank 2013).

121 ASCM (n 63) art 1.1.

122 D Coppens, *WTO Disciplines on Subsidies and Countervailing Measures: Balancing Policy Space and Legal Constraints* (CUP 2014) 46ff.

123 Verkuyl et al (n 16).

124 TSH Moerenhout, 'Energy Pricing Policies and the International Trade Regime' (2020) 23(1) *Journal of International Economic Law* 119, 124.

A 'subsidy' under the ASCM can be 'prohibited' or 'actionable'. In addition to subsidies using local content requirements, subsidies are prohibited if they are 'contingent, in law or in fact ... upon export performance'.<sup>125</sup> While fossil fuel consumption subsidies in the form of universal low end-user prices are unlikely to be prohibited subsidies,<sup>126</sup> some fossil fuel production subsidies could constitute prohibited export subsidies. For instance, the export orientation of an enterprise receiving the fossil fuel subsidy and the saturation of domestic fossil fuel markets can support the argument that a measure constitutes a prohibited export subsidy.<sup>127</sup> Importantly, unlike actionable subsidies (see below), prohibited subsidies can be challenged by any WTO Member.<sup>128</sup>

A precondition for a subsidy to be actionable is that it is 'specific to an enterprise or industry or group of enterprises or industries'.<sup>129</sup> Generally, fossil fuel production subsidies are more likely to meet this requirement than consumption subsidies such as the under-pricing of fuels for the domestic market or dual pricing schemes, which benefit large and diffuse groups of consumers.<sup>130</sup> Nevertheless, if consumption subsidies disproportionately benefit certain energy-intensive industries, they are arguably *de facto* specific.<sup>131</sup> However, such subsidies may still provide important benefits to other energy consumers, including households and other industries.<sup>132</sup>

For a subsidy to be actionable, it further needs to be established that it leads to 'adverse effects to the interests of other Members'.<sup>133</sup> Such adverse effects include (1) injury to the domestic industry of another Member, (2) nullification or impairment of benefits accruing directly or indirectly to other Members under the GATT,<sup>134</sup> and (3) serious prejudice to the interests of another Member. With regard to injury to the domestic industry of another Member, it

125 ASCM (n 63) art 3.1(a).

126 Moerenhout (n 124).

127 CH Slattery, 'Fossil Fueling the Apocalypse': Australian Coal Subsidies and the Agreement on Subsidies and Countervailing Measures' (2019) 18(1) *World Trade Review* 109.

128 ASCM (n 63) art 4.1.

129 ASCM (n 63) art 2.1.

130 De Bièvre et al (n 119) 418.

131 R Howse, 'Climate Change Mitigation Subsidies and the WTO Legal Framework: A Policy Analysis' (11SD 2010) 9; A Marhold, 'Fossil Fuel Subsidy Reform in the WTO: Options for Constraining Dual Pricing in the Multilateral Trading System' (ICTSD 2017) 13.

132 Moerenhout (n 124) 127–8.

133 ASCM (n 63) art 5.

134 This category is less relevant for the current discussion, as it includes the requirement that the price effect of a tariff concession should be 'systematically offset' by a subsidy. *United States–Continued Dumping and Subsidy Offset Act of 2000*, Panel Report, WT/DS217/R, WT/DS234/R (16 September 2002) para 7.127.

needs to be established that there was an injury (eg in the form of a decline of output, sales, market share, profits, productivity, etc)<sup>135</sup> over a certain period, caused by the subsidized imports,<sup>136</sup> Concerning serious prejudice to the interests of another Member, a complainant may argue that a fossil fuel subsidy leads to the displacement of its exports. However, the claimant needs to prove that the effect is due to the subsidy itself.<sup>137</sup> Determining this causation is a 'fact-intensive exercise, and one that inevitably involves extensive, case-specific evidence',<sup>138</sup> including both qualitative and quantitative analyses. Moreover, in several instances, serious prejudice needs to be caused against 'like products'<sup>139</sup> While it may perhaps be argued that, for instance, Australian coal and Indonesian coal are 'like',<sup>140</sup> it is improbable that renewable energy products (eg solar panels) and fossil fuels would be considered 'like'.<sup>141</sup> This means that trade effects of fossil fuel subsidies on renewable energy products would likely fall by the wayside.

As the preceding discussion has shown, a challenge to fossil fuel subsidies is possible, but passing the various hurdles of the ASCM will likely prove challenging, particularly in the absence of public information about a subsidy. Moreover, the ASCM disciplines are solely concerned with the trade effects of fossil fuel subsidies, rather than its environmentally harmful impacts.<sup>142</sup>

## V Should WTO Bodies Decide On Climate Change-Related Disputes?

The chapter thus far has surveyed the existing practice of the WTO in climate change-related disputes and offered a glimpse into the possible future. However, it has not answered a more fundamental question: is it at all desirable

135 ASCM (n 63) art 15.4.

136 *European Communities and Certain Member States—Measures Affecting Trade in Large Civil Aircraft*, Panel Report, WT/DS316/R (1 June 2011) paras 7.2059–7.2071.

137 Coppens (n 122) 145.

138 *United States—Measures Affecting Trade in Large Civil Aircraft (Second Complaint)*, Appellate Body Report, WT/DS353/AB/R (23 March 2012) para 915.

139 ASCM (n 63) art 6.3.

140 Slattery (n 127) 128.

141 C Wold, G Wilson and S Foroshani, 'Leveraging Climate Change Benefits through the World Trade Organization: Are Fossil Fuel Subsidies Actionable?' (2012) 43(3) *Georgetown Journal of International Law* 635, 670.

142 In this context, ongoing negotiations on unsustainable fisheries subsidies at the WTO may hint at the possibilities for developing rules on fossil fuel subsidies. See MA Young, 'Energy Transitions and Trade Law: Lessons from the Reform of Fisheries Subsidies' (2017) 17(3) *International Environmental Agreements: Politics, Law and Economics* 371.



for the WTO dispute settlement bodies to rule on climate change-related disputes? This section explains why some caution is warranted in advocating for a stronger role for the WTO dispute settlement system and offers some ideas on how climate change considerations could be strengthened in future disputes.

Climate change-related disputes before the WTO can raise several important policy questions. Are local content requirements an effective means of achieving green industrial policy goals? What kind of biofuels should support the decarbonization of the transport sector? How can a BCA take into account the climate policies of another country? How do fossil fuel subsidies hamper the clean energy transition? Not all these questions, however, can be answered in WTO dispute settlement. More importantly, some of these questions probably *should not* be answered by WTO panels or the Appellate Body.

WTO disputes involve trade rules, as applied and interpreted by trade experts. Although the practice of the Appellate Body suggests an increasing accommodation of environmental concerns, as evidenced by the *Shrimp–Turtle* rulings, other disputes have exposed the limitations of the dispute settlement bodies' willingness to integrate non-trade concerns. For instance, in the *Biotech* dispute, the Panel did not seek recourse to the Convention on Biological Diversity or the Cartagena Protocol, despite their obvious relevance to the dispute.<sup>143</sup>

Due to the strength of its dispute settlement mechanism the WTO may find itself in the unenviable position of finding the right balance between trade and climate concerns. The likely result of such an exercise is 'a particular *kind* of balance – which inevitably favours some interests and values over others'.<sup>144</sup> Even in the case that climate policy considerations are given due regard, it remains the case that for some climate change-related trade measures the jury is still out. For instance, while some may argue that a BCA is essential for preventing carbon leakage and leveraging other countries to increase climate ambition, others may argue such measures are premised on an implicit or explicit evaluation of the climate policies of other countries that runs against the spirit of the Paris Agreement. And while some may argue that local content requirements are ineffective and discriminatory, in some cases they may be genuinely necessary for the success of a country's green industrial policy. If WTO dispute

143 *European Communities–Measures Affecting the Approval and Marketing of Biotech Products*, Panel Report, WT/DS291/R (29 September 2006) paras 7.74–7.75, 7.95. See MA Young, 'The WTO's Use of Relevant Rules of International Law: An Analysis of the *Biotech Case*' (2007) 56(4) *International & Comparative Law Quarterly* 907.

144 ATF Lang, 'Legal Regimes and Professional Knowledge: The Internal Politics of Regime Definition' in MA Young (ed), *Regime Interaction in International Law: Facing Fragmentation* (CUP 2012) 113.

settlement bodies have to rule on these contentious questions, the outcome may adversely affect countries' climate policies, the prospects for international climate cooperation, as well as the external legitimacy of the WTO (and its dispute settlement system).<sup>145</sup>

Mindful of these caveats, there are several ways through which the practice of WTO dispute settlement could be improved to better integrate climate change-related considerations. A first set of options concerns the ways in which climate change-related expertise can be better integrated into WTO dispute settlement. The most direct way to do so would be to ensure that panel and Appellate Body members have a relevant background in environmental science, law and/or policy.<sup>146</sup> For panel members, the WTO's Dispute Settlement Understanding (DSU) specifies that panels should be 'composed of well-qualified governmental and/or non-governmental individuals', and that '[p]anel members should be selected with a view to ensuring the independence of the members, a sufficiently diverse background and a wide spectrum of experience'.<sup>147</sup> For the Appellate Body, the DSU suggests that it will 'comprise persons of recognized authority, with demonstrated expertise in law, international trade and the subject matter of the covered agreements generally'.<sup>148</sup> These formulations are broad enough to include people with relevant climate expertise in panels or even the Appellate Body, although for both (and especially the Appellate Body) general expertise in trade agreements will also be required.<sup>149</sup>

Another way in which (the use of) climate expertise in trade disputes could be strengthened is by calling upon relevant climate change-related experts or information.<sup>150</sup> Pursuant to Article 13 DSU, panels are entitled to 'seek information and technical advice from any individual or body which it deems appropriate'<sup>151</sup> and in addition they may 'seek information from any relevant source

145 See GC Hufbauer, S Charnovitz and J Kim, *Global Warming and the International Trading System* (Peterson Institute for International Economics) 96; and K Kulovesi, *The WTO Dispute Settlement System: Challenges of the Environment, Legitimacy and Fragmentation* (Kluwer Law International 2011).

146 A related suggestion is to ensure that WTO Secretariat staff assisting panels and the Appellate Body have the relevant expertise. See J Pauwelyn, 'The Use of Experts in WTO Dispute Settlement' (2002) 51(2) *International & Comparative Law Quarterly* 325, 345.

147 DSU (n 3) arts 4(1) and 4(2).

148 DSU (n 3) art 17(3). The language is repeated *verbatim* in MPIA (n 6) Annex 2, para 3.

149 Indeed, Pauwelyn warns that putting scientific experts on a panel 'is not a good idea ... [as] the expert/panel member in question exerts too much uncontrolled power over the other two panelists' (Pauwelyn (n 146) 345).

150 See generally Pauwelyn (n 146); and CT Timura, 'Cross-Examining Expertise in the WTO Dispute Settlement Process' (2002) 23(3) *Michigan Journal of International Law* 709.

151 DSU (n 3) art 13(1).

and may consult experts to obtain their opinion on certain aspects of the matter'.<sup>152</sup> The latter may also involve an advisory report from an expert review group;<sup>153</sup> however, the general WTO practice has been to rely primarily upon individually appointed experts, rather than for instance intergovernmental organizations with relevant expertise.<sup>154</sup> Experts could advise a panel on factual issues (eg the sustainability impacts of different types of biofuels), but in principle they could advise on legal issues outside of the trade law expertise of members (eg the legal nature of the Paris Agreement and its nationally determined contributions).<sup>155</sup> While the role of experts is advisory, 'it will be difficult, if not impossible, for a panel to overrule a consensus position expressed by the experts'.<sup>156</sup>

The broad formulation of Article 13 DSU has also provided panels with the discretion to consider unsolicited *amicus curiae* briefs from interested actors.<sup>157</sup> However, given disagreements among Members on the admissibility of information contained in these briefs,<sup>158</sup> dispute settlement bodies have been reluctant to draw on them.<sup>159</sup> For instance, while both the Panel and Appellate Body in *Canada–Renewable Energy* received several *amicus* briefs, their contents were not considered.<sup>160</sup> Nevertheless, *amicus curiae* briefs could offer one further way through which climate change-related information could be brought to the attention of the dispute settlement bodies.

A second set of options concerns the space for dispute settlement bodies to clarify provisions of the WTO Agreements through 'evolutionary' interpretation. To avoid situations in which the WTO dispute settlement bodies determine which climate policies are most suitable (see above), a careful approach to this option would be required. While it is beyond the scope of this chapter to discuss all the ways in which provisions of the GATT and other WTO Agreements could be interpreted in more climate-friendly ways, one clear

152 DSU (n 3) art 13(2).

153 DSU (n 3) art 13(2) and Appendix 4.

154 M Cossy and G Marceau, 'Institutional Challenges to Enhance Policy Co-ordination – How WTO Rules Could be Utilised to Meet Climate Objectives?' in T Cottier, O Nartova and SZ Bigdeli (eds), *International Trade Regulation and the Mitigation of Climate Change* (CUP 2009) 377.

155 Pauwelyn (n 146) 332.

156 Pauwelyn (n 146) 355.

157 For an overview of submitted briefs, see <<http://www.worldtradelaw.net/static.php?type=public&page=amicus>> accessed 19 February 2021.

158 Cossy and Marceau (n 154) 380.

159 T Squatrito, 'Amicus Curiae Briefs in the WTO DSM: Good or Bad News for Non-State Actor Involvement?' (2018) 17(1) *World Trade Review* 65.

160 Charnovitz and Fischer (n 57) 199.

candidate is the interpretation that climate change measures fall within the substantive scope of Articles XX(b) and (g) GATT.<sup>161</sup>

Implementing the sets of options outlined above likely requires overcoming the ongoing Appellate Body impasse. A final option, however, may well build on the continuing stand-off. Under the option of a 'peace clause' or moratorium, WTO Members would refrain, at least for a period of time, from challenging each other's climate policies.<sup>162</sup> While such a peace clause is in effect, Members could feel at liberty to ramp up climate action without the threat of a WTO dispute hanging over their heads. However, a peace clause would likely require a decision from WTO Members, which requires consensus or, if that is not possible, a majority vote.<sup>163</sup> Moreover, a peace clause may not fully protect Members from challenges, and would require a careful formulation to avoid creating the 'perverse incentive for introducing protectionist or otherwise trade-restrictive climate policy measures'.<sup>164</sup>

## VI Concluding Remarks

In the wake of the COVID-19 pandemic and its associated economic crisis, the multilateral trade and climate change regimes are both at a crossroads. The trade regime is faced with a dysfunctional dispute settlement system and a stalled round of negotiations. The climate regime is in urgent need of countries to step up and submit more ambitious nationally determined contributions to achieve the goals set by the Paris Agreement. While a green trade recovery could offer a way forward that could reinvigorate both regimes,<sup>165</sup> the limited

161 R Meléndez-Ortiz, 'Enabling the Energy Transition and Scale-Up of Clean Energy Technologies: Options for the Global Trade System' (ICTSD and World Economic Forum) 23. As noted above, this has already been made explicit by the Panel in *Brazil-Taxation* (n 103) for Article XX(b). Another suggestion is to interpret the *chapeau* of Article XX GATT in a climate-friendly manner; see Benjamin (n 13).

162 For instance, an option may be 'to wait at least three years before challenging national climate measures or countermeasures that restrict trade or otherwise have trade effects in WTO dispute settlement'; see J Bacchus, 'Global Rules for Mutually Supportive and Reinforcing Trade and Climate Regimes' (ICTSD and World Economic Forum 2016) 14.

163 Agreement Establishing the World Trade Organization (n 17) art IX(1).

164 K Das et al, 'Making the International Trading System Work for Climate Change: Assessing the Options' (2019) 49(6) *Environmental Law Reporter* 10553, 10563.

165 See C Charveriat and C Deere Birkbeck, 'Greening Trade for a Global, Green, and Just Recovery' (Institute for European Environmental Policy and Chatham House 2020).

progress in trade negotiations could mean that the relationship between the two regimes is largely determined through disputes.<sup>166</sup>

Assuming the current Appellate Body crisis can be overcome, the gradual strengthening of climate action by countries pursuant to the Paris Agreement may put more disputes before the WTO dispute settlement system. Considering existing disputes as well as potential forthcoming ones, this chapter has reflected on the role of the WTO dispute settlement in the context of climate change.

At first blush, some of the rulings—notably those related to renewable energy support measures in Canada, India and the United States—may give credence to the claim that the WTO is blocking climate action. However, a closer look shows that WTO dispute settlement bodies were mainly concerned with the use of local content requirements. Still, further disputes against other renewable energy support measures cannot be ruled out. The extent to which WTO can balance climate change goals with—primarily developing countries’—concerns over disguised protectionism has yet to be put to the test, but a dispute on BCAs would likely involve such a balancing act. However, as this chapter has sought to make clear, in such a case it would be incredibly hard for a dispute settlement body to strike the right balance.

Whether WTO dispute settlement will play a role in addressing measures that are both environmentally harmful and have adverse trade effects remains uncertain. The discussion of a possible dispute on fossil fuel subsidies shows that existing subsidies rules were not crafted with the negative environmental impacts of such subsidies in mind, and that evidentiary barriers for a successful challenge are high. Nevertheless, such a dispute—should a Member decide to launch one—would offer a unique opportunity for WTO dispute settlement bodies to use trade rules to drive climate action.

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<sup>166</sup> Although Doha Round negotiations on trade and the environment have not made much progress, an interesting development has been the launch of negotiations on a new Agreement on Climate Change, Trade and Sustainability, involving Costa Rica, Fiji, Iceland, New Zealand, Norway and Switzerland. See H van Asselt, ‘Small Countries Punching Above Their Weight: The New Initiative for an Agreement on Climate Change, Trade and Sustainability (ACCTS)’ (*SDG Knowledge Hub*, 3 October 2019).