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ORIGINAL ARTICLE

The First Ten Years of WTO Jurisprudence on Renewable Energy Support Measures: Has the Dust Settled Yet?

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Abstract

The last decade has witnessed the emergence and rise of trade disputes over renewable energy support measures. By pitting trade against the environment, these disputes ignited a considerable debate over the adequacy of the green policy space available under WTO law. This article examines whether and to what extent the first ten years of litigation settled the key issues in this debate by undertaking a systematic analysis of the developments in the case law and in the renewable energy policy landscape. The analysis reveals that the case law has raised more questions than answers and much uncertainty remains as to the scope of the policy space available for the subsidization of renewables. It also highlights how these disputes steered the debate away from the most contentious issue of subsidy regulation to the slam-dunk issue of non-discrimination. In doing so, they helped conceal rather than resolve the green policy space deficit in multilateral renewable energy subsidy governance.

Keywords: WTO; SCM agreement; renewable energy subsidies; local content requirements; energy transition; climate change

1. Introduction

Countries across the world have introduced a broad array of legal and policy measures to help accelerate their climate change and energy security driven transition towards renewable energy sources. Nearly all countries now have renewable energy support measures of one form or another.¹ These support measures have been instrumental in the development and deployment of renewable energy technologies.² However, the rise in their popularity has been accompanied by an analogous growth in the volume of legal challenges against their use in the multilateral trading system. Ever since Japan brought the first of such disputes in 2010, eight further trade disputes have been brought against renewable energy support measures in the WTO.

The rise in trade disputes has ignited considerable debate over the regulation of energy subsidies in the multilateral trading system.³ A central issue in this debate has been the need for and adequacy

¹See REN21, *Renewables 2020 Global Status Report* (REN21 2020).

²See O. Edenhofer et al. (eds.) (2012) *Renewable Energy Sources and Climate Change Mitigation: Special Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press; REN21, *supra* note 1; M. Nicolini and M. Tavoni (2017) 'Are Renewable Energy Subsidies Effective? Evidence from Europe', *Renewable and Sustainable Energy Reviews* 74, 412.

³For a detailed discussion of the main issues in this debate, see, e.g., K. Kulovesi (2014) 'International Trade Disputes on Renewable Energy: Testing Ground for the Mutual Supportiveness of WTO Law and Climate Change Law', *Review of European, Comparative and International Environmental Law* 23, 342; L. Rubini (2012) 'Ain't Wastin' Time No More: Subsidies for Renewable Energy, The SCM Agreement, Policy Space, and Law Reform', *Journal of International Economic Law* 15, 525; H. Asmelash (2015) 'Energy Subsidies and WTO Dispute Settlement: Why Only Renewable Energy Subsidies Are Challenged', *Journal of International Economic Law* 18, 261; A. Cosbey and P. Mavroidis (2014) 'A Turquoise Mess: Green Subsidies, Blue Industrial Policy and Renewable Energy: The Case for Redrafting the Subsidies

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of policy space for the subsidization of renewable energy sources. Ten years after the initiation of the first trade dispute against renewable energy support measures, it is time to take stock of the developments in the case law and the issues to which they give rise. How has the case law on renewable energy support measures evolved over the past ten years? What types of support measures have been vulnerable to legal challenges? Do trade rules pose a threat to the subsidization of renewables (and thereby to the sustainable energy transition)? Is there any room left for governments to justify the subsidization of renewables based on their environmental and social benefits? What is the viable way forward to ensure the mutual supportiveness of trade and renewable energy measures?

To tackle these questions, this article undertakes a systematic analysis of the developments in case law with regard to the trade and environment scholarship and the renewable energy policy landscape. Section 2 considers the key issues in the trade and environment debate over renewable energy subsidies. It illustrates how these disputes brought renewable energy subsidies to the forefront of the longstanding trade and environment debate in the multilateral trading system. Section 3 takes stock of the developments in case law. The goal of this section (and this article) is to provide a comprehensive and systematic analysis of the last ten years of jurisprudence on renewable energy support measures. Such an analysis is of paramount importance in gaining a deeper understanding of the nature of the disputes and disputants, the support measures that are vulnerable to legal challenges, and the legal bases of the challenges and the legal grounds available to justify the use of such support measures. Section 4 considers whether the case law on renewable energy Local Content Requirements (LCRs) has reached the end of the line by examining whether there is any room left for justifying such measures. The section concludes that while some uncertainty remains as to the possibility of justifying LCRs under the general exceptions contained in Article XX of the General Agreement on Tariffs and Trade (GATT), it is now abundantly clear that such measures stand little chance if any of passing WTO scrutiny. Section 5 examines whether the Agreement on Subsidies and Countervailing Measures (SCM Agreement) poses any threat to the subsidization of renewables in light of the developments in the case law. The analysis in this section reveals how the adjudicators systematically steered the disputes away from the contentious issue of subsidy regulation, but their effort falls short of alleviating the threat of the SCM Agreement to the promotion of renewables. Section 6 concludes the discussion by outlining the road ahead.

2. The Trade and Environment Debate on Renewable Energy Subsidies

The international trade regime has long recognized the importance of trade measures in the pursuit of non-economic objectives. This recognition is most evident in the inclusion of sustainable development that protects and preserves the environment as an overarching objective of the WTO in the preamble to the Marrakesh Agreement.⁴ Together with the inclusion of environmental exceptions in various Uruguay Round agreements and the establishment of the Committee on Trade and Environment (CTE) with a broad mandate to ensure mutual support of trade and the environment, the Marrakesh Agreement effectively brought the environment into the WTO realm. Subsequent high-profile trade and environmental disputes such as *US-Shrimp*⁵ and *Brazil-Retreaded Tyres*⁶ have tested the scope of environmental policy space under various

Agreement of the WTO', *Journal of International Economic Law* 17, 11; T. Cottier (2014) 'Renewable Energy and WTO Law: More Policy Space or Enhanced Disciplines', *Renewable Energy Law and Policy Review* 5, 40; I. Espa and G.M. Durán (2018) 'Renewable Energy Subsidies and WTO Law: Time to Rethink the Case for Reform Beyond Canada – Renewable Energy/Fit Program', *Journal of International Economic Law* 21, 621.

⁴See Marrakesh Agreement Establishing the World Trade Organization (signed 15 April 1994, entered into force 1 January 1995) 1867 UNTS 154.

⁵Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products (US-Shrimp)*, WT/DSS8/AB/R, adopted 6 November 1998.

⁶Appellate Body Report, *Brazil – Measures Affecting Imports of Retreaded Tyres (Brazil-Retreaded Tyres)*, WT/DS332/AB/R, adopted 17 December 2007.

WTO Agreements. None of these classical trade and environment disputes however involved subsidies and the SCM Agreement.

Scholarly attention was drawn towards renewable energy subsidies and the green policy space deficit of the SCM Agreement only after *Canada–Renewable Energy/FIT* case.⁷ The expiry of the only exception for environmental subsidies under the SCM Agreement (i.e. Article 8) in 1999 received limited scholarly attention in the trade and environment debate before 2010.⁸ However, disputes over the last ten years have lifted renewable energy support measures from obscurity to the centre of the trade and environment debate. Trade and environment scholarship now considers regulation of energy subsidies as a real testing ground for the mutual supportiveness of the international trade and climate change regimes.⁹

The SCM Agreement came under intense environmental scrutiny ten years after the expiry of its only environmental exception in 1999. Government support measures that meet the definitional requirement of Article 1 and the specificity test of Article 2 of the SCM Agreement were originally categorized into three measures: prohibited, actionable, and non-actionable subsidies. The prohibited category contains subsidies that are contingent upon either export performance (export subsidies) or the use of domestic over imported goods (import substitution subsidies).¹⁰ Such subsidies are prohibited because of their ostensible trade distortive effects and hence the subsidizing government must withdraw such subsidies ‘without delay’ once their existence is established.¹¹ The actionable category is composed of subsidies that cause injury to the domestic industry of another member.¹² The SCM Agreement does not prohibit the use of such subsidies but authorizes the affected member to take unilateral (countervailing duties) or multilateral action to defuse their adverse effects.¹³ The expired non-actionable category shielded subsidies with environmental, regional development, and research and development objectives under certain conditions.¹⁴ The non-actionable category was in force only for the first five years after the entry into force of the SCM Agreement in January 1995. Article 31 urged WTO Members to establish a Committee that would review the operation of this category and determine its extension with or without modification. The Committee was established accordingly but failed to reach consensus on the extension because of developed–developing country disagreements over the relevance and the form of the extension.¹⁵ Developing countries were of the view that extending the application of the non-actionable category in its original form would only benefit developed countries.¹⁶ It did not help that these discussions took place at

⁷See Appellate Body Reports, *Canada – Certain Measures Affecting the Renewable Energy Generation Sector (Canada–Renewable Energy)/Canada – Measures Relating to the Feed-in Tariff Program (Canada–Feed-In Tariff Program)*, WT/DS412/AB/R, WT/DS426/AB/R, adopted 24 May 2013.

⁸For pre-2010 articles that discussed the expiry of Article 8 of the SCM Agreement, see G.C. Hufbauer, S. Charnovitz and J. Kim (2009) *Global Warming and the World Trading System*, Peterson Institute, at 66 & 110; S.Z. Bigdeli (2009) ‘Incentives Schemes to Promote Renewables and the WTO Law of Subsidies’, in T. Cottier, O. Nartova, and S. Bigdeli (eds.), *International Trade Regulation and the Mitigation of Climate Change*, Cambridge University Press, at 190 et seq. F.A. Ayala and K.P. Gallagher (2009) ‘Subsidizing Sustainable Development under the WTO’, *Journal of World Investment and Trade* 10, 131.

⁹See Kulovesi, *supra* n. 3. See also M. Wu and J. Salzman (2014) ‘The Next Generation of Trade and Environmental Conflicts: The Rise of Green Industrial Policy’, *Northwestern University Law Review* 108, 401.

¹⁰Agreement on Subsidies and Countervailing Measures (signed 15 April 1994, entered into force 1 January 1995) 1869 UNTS 14 (SCM Agreement), Art. 3.

¹¹*Ibid.*, Art. 4.

¹²*Ibid.*, Arts. 5 & 6.

¹³*Ibid.*, Art. 7.

¹⁴*Ibid.*, Art. 8.

¹⁵For the debate within the SCM Committee on extending the application of Article 8 of the SCM Agreement, see WTO (2002) ‘Minutes of the Regular Meeting Held on 1–2 November 1999’, G/SCM/M/24.

¹⁶See *ibid.*, para. 22. The Dominican Republic expressed its disagreement with the extension of Article 8 by referring to it as ‘among the most flagrant examples of imbalance in the WTO Agreements’.

the height of the tension between developed and developing countries ahead of the infamous Seattle Ministerial Conference in 1999.

The expiry of Article 8 removed policy considerations from the SCM Agreement. Government support measures that meet the definitional and specificity requirements are now either prohibited or actionable no matter what their objective. The only criteria at play are the adverse economic effect of subsidies. This does not bode well for an organization with an overarching objective of ensuring sustainable development. It ignores the fact that subsidies have been, and remain, by far the most popular policy instrument that governments worldwide use in their pursuit of non-economic objectives such as tackling climate change. It is also legally incoherent given the fact that other WTO Agreements (GATT Article XX) permit the use of even more trade restrictive measures for legitimate public policy purposes. There is no justification whatsoever for the international trade regime to allow, for example, the US to ban the importation and sale of shrimps to protect sea turtles (see *US-Shrimp*) but prohibit it from subsidizing its renewable energy industry to help reduce greenhouse gas emissions. It is perplexing that this grave incoherence in the international trade regime failed to attract the attention of the trade and environment scholarship especially between 1999 and 2010.

In the absence of an express environmental exception, the availability of policy space under the SCM Agreement for the subsidization of renewables depends on the following: do renewable energy support measures constitute a ‘subsidy’ within the meaning of Article 1? Do such measures pass the specificity test of Article 2? Does GATT Article XX justify renewable energy support measures that meet the definitional and specificity tests of the SCM Agreement? We will consider whether and in what ways the last ten years of WTO jurisprudence on renewable energy support measures address these questions in sub-section 3.2.2 and section 5 below.

It is also important to note here that the SCM Agreement is not the only WTO Agreement relevant to the governance of renewable energy support measures. Discriminatory renewable energy support measures are also subject to the GATT and the Agreement on Trade-related Investment Measures (TRIMs). The scope of the green policy space under these agreements has been the subject of numerous trade and environment disputes¹⁷ long before *Canada-Renewable Energy/FIT*, but it was only over the last ten years that their relevance to renewable energy support measures was tested. The review of the case law suggests that determining the policy space for the subsidization of renewables under these agreements depends on the following. Which renewable energy support measures infringe the non-discrimination rule contained in these agreements? Does the government procurement derogation from the non-discrimination rule apply to such measures? Are such measures justifiable under the general exceptions contained in GATT Article XX? We will consider whether and how the WTO adjudicators addressed these questions in sub-section 3.2.1 and section 4 below.

3. WTO Disputes on Renewable Energy Support Measures

The number of trade disputes over renewable energy support measures reached nine over the space of ten years (see Table 1 below). This number does not include the unilateral countervailing duty actions taken against such measures in different countries. Five of the nine cases went at least to the panel stage, while the remaining four (*China-Wind Power Equipment*, *EU and Certain Member States-Renewable Energy*, *EU and Certain Member States-Biodiesel*, and *US-Renewable Energy (China)*) were resolved or are still at the consultation stage. The United States dropped its claim against the Chinese subsidies for wind power equipment in

¹⁷For a quick overview of these cases, see N. Moran (2017) ‘The First Twenty Cases under GATT Article XX: Tuna or Shrimp Dear?’, in G. Adinolfi et al. (eds.), *International Economic Law*. New York: Springer.

Table 1. WTO Disputes on Renewable Energy Support Measures (as of November 2021)

Disputes	Energy sources	Types of support measures	Agreement/Articles cited	Outcome/Status
<i>Canada–Renewable Energy</i> (DS412)	Wind & solar	FIT + LCRs	SCM Agreement Art 3.1(b); GATT Art III:4; TRIMs Agreement Art 2.1	Inconsistent with GATT Art III:4 & TRIMs Art 2.1
<i>Canada–FIT</i> (DS426)				
<i>China–Wind Power Equipment</i> (DS419)	Wind	Grants + LCRs	SCM Agreement Arts 3.1(b) & 25; GATT Art XVI:1; Accession Protocol	China withdrew the measure at the consultations stage
<i>US–Countervailing Measures (China)</i> (DS437)	Wind & Solar	Loans, provision of goods, grants, tax incentive	SCM Agreement Arts 1.1, 2, 11, 12, 30 & 32; GATT Arts VI & XXIII	Inconsistent with Arts 14(d) & 1.1(b) of the SCM Agreement
<i>EU and Certain Member States–Renewable Energy</i> (DS452)	Solar, biofuel & bioliquids	FIT + LCRs	SCM Agreement Art 3.1(b); GATT Art III:4; TRIMs Agreement Art 2.1	Abandoned/remains at the consultations stage
<i>India–Solar Cells</i> (DS456)	Solar	FIT + LCRs	GATT Art III:4; TRIMs Agreement Art 2.1	Inconsistent with GATT Art III:4 & TRIMs Art 2.1 Not justifiable under GATT Art XX(d)&(j)
<i>EU and Certain Member States–Biodiesel</i> (DS459)	Biodiesel	Renewable energy mandate + LCRs, tax incentive + LCRs	SCM Agreement Arts 3.1(b), 5(b) 5(c) & 6(a); GATT Art III:4; TRIMs Agreement Art 2.1	Remains at the consultations stage
<i>US–Renewable Energy (India)</i> (DS510)	Solar, ethanol	RPS + LCRs, rebate + LCRs, Tax incentives + LCRs	SCM Agreement Arts 3.1(b), 5(a), 5(c), 6.3(a) & 6.3(c); GATT Art III:4; TRIMs Agreement Art 2.1	Inconsistent with GATT Art III:4 & TRIMs Art 2.1
<i>US–Renewable Energy (China)</i> (DS563)	Solar	Tax incentive + LCRs, grants + LCRs	SCM Agreement Art 3.1(b); GATT Art III:4; TRIMs Agreement Art 2.1	Remains at the consultations stage

Source: Compiled by the author.

China–Wind Power Equipment following China’s agreement to withdraw the subsidies.¹⁸ In *EU and Certain Member States–Renewable Energy*, China requested consultations with the EU concerning the Italian and Greek FIT programs with LCRs in response to the countervailing duty investigations the EU launched against renewable energy generation equipment from China.¹⁹ Although there is no official statement on this, it seems that China dropped its complaint as part of a settlement with the EU to discontinue the countervailing duty investigations.²⁰ There is no publicly available information on why Argentina has not pursued its complaints in *EU and Certain Member States–Biodiesel* against Belgian and French biodiesel support measures. However, it is noteworthy that Argentina brought and won a subsequent case against EU anti-dumping measures on biodiesel from Argentina.²¹ China’s complaints in *US–Renewable Energy* is likely part of the broader US–China trade war and perhaps a direct response to the countervailing duties the US imposed against Chinese solar panels and wind turbines (*US–Countervailing Measures (China)*).

Most of the trade disputes over renewable energy support measures are tit-for-tat disputes among a few advanced economies with growing renewable energy equipment manufacturing industries. The United States (5), China (4), the European Union (3), India (2), Canada (2), Argentina (1), and Japan (1) are by no means the only WTO Members that subsidize their renewable energy sector, but they are by far the leading countries in renewable energy equipment manufacturing. China, the US, and the EU dominate the global renewable energy equipment market. Perhaps the only two WTO Members with a notable share in the global renewable energy equipment market missing from the renewable energy subsidy war are South Korea and Brazil. The nature of the disputants suggests that these disputes are more about competition for technological leadership and control of the lucrative global market for renewable energy technologies than about renewable energy sources *per se*. Does that mean the growing volume of trade disputes over renewable energy support measures cause no environmental concerns? The answer is a definite no for at least three key reasons.

First, the parties to these disputes are also by far the most greenhouse gas-emitting jurisdictions. The US, China, EU, India, and Japan alone are responsible for over 60% of global greenhouse gas emissions.²² It is imperative that these jurisdictions have every policy instrument at their disposal to help increase the share of renewables in their national energy mix. Trade distortion should not be the only criteria that determines the legitimacy of policy instruments. Second, the parties to these disputes are also the leading subsidizers of renewables. The International Renewable Energy Agency (IRENA) estimated that the European Union (54%), the United States (14%), Japan (11%), China (9%), and India (2%) accounted for approximately 90% of total renewable energy subsidies in 2017.²³ These figures illustrate the link between the level of renewable energy subsidization and involvement in trade disputes. Other WTO Members may face similar legal challenges if and when the size of their subsidy increases. Third, these disputes may exert a ‘chilling effect’ on other countries. The world needs diverse centres of renewable energy equipment manufacturing not one concentrated in a few countries – whether that is

¹⁸See C.-H. Wu and K.-C. Yang (2015) ‘Aggressive Legalism: China’s Proactive Role in Renewable Energy Trade Disputes?’, *Oil, Gas and Energy Law* 13, 1.

¹⁹See WTO (2012) ‘Request for Consultations by China, European Union and Certain Member States – Certain Measures Affecting the Renewable Energy Generation Sector (DS452)’, WT/DS452/1.

²⁰See European Commission (2013) ‘Commissioner De Gucht: “We Found an Amicable Solution in the EU–China Solar Panels Case That Will Lead to a New Market Equilibrium at Sustainable Prices”’, https://ec.europa.eu/commission/presscorner/detail/en/MEMO_13_729 (accessed 16 April 2021).

²¹See Appellate Body Report, *European Union – Anti-Dumping Measures on Biodiesel from Argentina (EU–Biodiesel)*, WT/DS473/R, adopted 26 October 2016.

²²H. Ritchie, ‘Who Has Contributed Most to Global CO2 Emissions?’, *Our World in Data*, 1 October 2019, <https://ourworldindata.org/contributed-most-global-co2> (accessed 7 April 2021).

²³See M. Taylor (2020) ‘Energy Subsidies: Evolution in the Global Energy Transformation to 2050’, International Renewable Energy Agency, at 8.

economically efficient or otherwise. If the international trade regime draws one lesson from the corona virus pandemic it is the importance of having diverse centres of production. The overreliance on a few countries for medical equipment, from masks and ventilators to testing kits and vaccines, necessary for the fight against the pandemic has proved detrimental to countries particularly in the global south. Developing domestic manufacturing capacity is essential in the fight against the even bigger and deeper challenge of climate change. International trade rules must support, not stand in the way of, such efforts. This is why it is important to ensure the availability of adequate green policy space in multilateral trade rules for governments to support not only the generation of renewable electricity but also the manufacturing of renewable energy equipment.

The remainder of this section proceeds as follows: Section 3.1 considers the support measures that have been the subject of legal challenges. Section 3.2 examines key legal issues and findings in these disputes. This section is structured in line with the WTO agreements and provisions under which the claims were brought against renewable energy support measures vis-à-vis the legal grounds that the respondents invoked to justify their support measures.

3.1 Targeted Renewable Energy Support Measures

Renewable energy subsidies take many different forms. There is no commonly agreed taxonomy of subsidies either. The popular subsidy classification categorizes energy subsidies into production and consumption subsidies based on the recipients. This classification is particularly relevant to understanding why renewable energy subsidies are more vulnerable to legal challenges than fossil fuel subsidies in the multilateral trading system.²⁴ Unlike fossil fuel subsidies, renewable energy subsidies are mostly production subsidies and all the renewable energy subsidies that have faced legal challenges so far are production subsidies. However, this classification is too sweeping to understand the specific characteristics of the renewable energy subsidies that have been the subject of legal challenges in the multilateral trading system.

I noted in section 2 that the SCM Agreement now categorizes subsidies into two broad categories – prohibited and actionable subsidies. The renewable energy support measures in all but two cases (*India–Solar Cells* and *US–Countervailing Measures (China)*) were challenged as prohibited subsidies within the meaning of Article 3.1(b) of the SCM Agreement (import substitution subsidies). These were subsidies contingent upon the use of domestic over imported renewable energy components. In four of these disputes (*Canada–Renewable Energy*, *Canada–FIT*, *India–Solar Cells*, and *EU and Certain Member States–Renewable Energy*), the renewable energy support measures took the form of feed-in tariffs (FITs) whereby the government purchases electricity from private entities at a guaranteed above market price. FITs are price-driven incentives for production of energy from renewable energy sources. They have been the most common forms of renewable energy support measures worldwide, but they are currently in the midst of a transition period with significant changes to rates and design in many countries, particularly in Europe (e.g. Spain, Italy, Romania, Czech Republic, Germany, and the United Kingdom). The scaling back of feed-in tariffs has sparked the initiation of a veritable wave of investment treaty claims against countries. More than 25 investment treaty claims have been made over the last few years involving FIT programs.²⁵ Most of these investment claims are based on alleged breaches of the controversial fair and equitable treatment (FET) standard provisions of the Energy Charter Treaty (ECT).

Table 1 above shows that the disputes also targeted renewable energy support measures other than feed-in tariffs. The United States in *China–Wind Power Equipment* and *US–Countervailing*

²⁴See in general, Asmelash, *supra* n. 3.

²⁵See H. Pang (2020) 'Investor-State Dispute Settlement in Renewable Energy: Friend or Foe to Climate Change?', in J. Lin and D.A. Kysar (eds.), *Climate Change Litigation in the Asia Pacific*. Cambridge University Press.

Measures (China) targeted Chinese direct transfer of funds in the form of grants for renewable energy equipment manufacturers. India and China targeted various state-level tax reductions and rebates for renewable energy producers in *US–Renewable Energy (India)* and *US–Renewable Energy (China)*, respectively. In *EU and Certain Member States–Biodiesel*, Argentina challenged Belgian and French renewable energy support measures that mandated the use of biofuels and provided tax reductions for biofuels. The US challenged Chinese preferential loans for renewable energy equipment manufacturers in *US–Countervailing Measures (China)*. In *US–Renewable Energy*, India challenged the renewable portfolio standards (PBS) of Michigan and Delaware.²⁶ PBSs or quota systems are quantity driven regulatory instruments that typically require energy utility companies to source a minimum percentage of their electricity supply from eligible renewable energy sources.

One common feature of the support measures targeted in all but one of the renewable energy subsidy disputes (*US–Countervailing Measures (China)*) is the presence of local content requirements (LCRs). The guaranteed above market prices under the FIT programs, for example, were available only to those renewable electricity generators that comply with minimum local content requirements. The LCRs attached to the FIT and other subsidy programs condition access to the subsidy to the use of domestically manufactured renewable energy components (e.g. solar cells and modules, wind power and turbines, etc.). The minimum local content varies across countries. The Ontario FIT program at issue in *Canada–Renewable Energy/FIT*, for example, required local content ranging from 50% for wind projects to 60% for solar projects. The Jawaharlal Nehru National Solar Mission (JNNSM) underlying *India–Solar Cells* required solar power developers to domestically source 30–60% of their renewable energy components to be eligible for the fixed feed-in tariff.

Governments attach LCRs to their renewable energy subsidy schemes for a wide range of reasons from tackling climate change and energy poverty and creating local employment opportunities to securing a stable supply of renewable energy equipment and enhancing the competitiveness of their domestic renewable energy equipment manufacturing industry. Studies have also shown that governments use LCRs to garner political support for their renewable energy support programs.²⁷ Such programs often involve huge government expenditures and environmental justifications proved inadequate to make such expenditures politically palatable. The promises of domestic job creation and the development of a local renewable energy equipment manufacturing industry are more appealing to politicians than the environmental justifications underlying the subsidization of renewables. The problem with LCRs is that they are inherently discriminatory and conflict with the non-discrimination principle underpinning virtually all WTO Agreements. That is precisely why such measures have mostly been challenged concurrently under the three WTO agreements (see section 3.2).

The complainants in some of the disputes went out of their way to state that their issue was not with the renewable energy support measures *per se* but rather with the discriminatory aspects. In *Canada–Renewable Energy/FIT*, for example, Japan and the EU were adamant that they were not questioning the legitimacy of the environmental objectives underlying the Canadian FIT program.²⁸ They underlined that they were calling into question only the alleged discriminatory aspects of the FIT program – the LCRs. The EU even went to the extent of expressly stating in its written submissions that it did not ‘contest the general purpose of the FIT Program’.

²⁶See Panel Report, *United States – Certain Measures Relating to the Renewable Energy Sector (US–Renewable Energy)*, WT/DS510/R, circulated 27 June 2019.

²⁷See T. Meyer (2015) ‘How Local Discrimination Can Promote Global Public Goods’, *Boston University Law Review* 95, 1937.

²⁸See Panel Reports, *Canada – Certain Measures Affecting the Renewable Energy Generation Sector (Canada–Renewable Energy)/Canada – Measures Relating to the Feed-in Tariff Program (Canada–Feed-In Tariff Program)*, WT/DS412/R, WT/DS426/R, adopted 24 May 2013, para. 7.7.

which it considered to be ‘helping to promote electricity supply from renewable energy sources’.²⁹ It recognized such a purpose as ‘valid and legitimate’ that ‘WTO Members can and should actively support’ even by ‘granting subsidies’.³⁰ The nature of the disputes confirms that the targets of the legal challenges have been the renewable energy equipment industry rather than the renewable energy sources themselves. However, the millions of dollars that both complainants spent on the subsidization of renewables suggest that their statements here were largely fuelled by fear of accusation of hypocrisy or counter complaints. It is also likely that they were afraid of being seen as impediments to climate change action. This was particularly evident from Japan’s opposition to the characterization of the dispute as ‘trade and environment’ – insisting that it should rather be characterized as ‘trade and investment’.³¹ I have explained earlier why these disputes are in fact ‘trade and environment’ disputes.

3.2 Legal Challenges and Justifications

I have mentioned earlier that the SCM Agreement is not the only WTO Agreement relevant to renewable energy subsidy governance. In most of the disputes, the challenges were brought simultaneously under Article 3.1(b) of the SCM Agreement, GATT Article III:4 and Article 2.1 of the TRIMs Agreement (see Table 1). In *India–Solar Cells*, the United States dropped its initial claim under Article 3.1(b) of the SCM Agreement in the aftermath of the Appellate Body’s ruling in *Canada–Renewable Energy/FIT*. In that dispute, the Appellate Body raised the threshold of establishing the existence of a subsidy and thereby the chance of successfully challenging FIT programs under the SCM Agreement (see section 3.2.2).

GATT Article III:4 and TRIMs Article 2.1 deal with one pillar of the non-discrimination principle that underpins the multilateral trading system. The national treatment obligations contained in these provisions preclude WTO Members from treating imports less favourably than they treat their like domestic counterparts. These obligations become relevant to renewable energy subsidy governance to the extent that the subsidy is conditioned upon the use of domestic over imported products. Such subsidies are also prohibited under Article 3.1(b) of the SCM Agreement. The Appellate Body recognized the overlap between these three provisions in *Canada–Renewable Energy/FIT* and concluded that they impose cumulative obligations.³² While the legal consequences are almost identical,³³ their scope of application and requirements for establishing inconsistency with Article 3.1(b) of the SCM Agreement is different from establishing inconsistency with GATT Article III:4 and TRIMs Article 2.1.³⁴ This consideration explains why challenges against allegedly discriminatory renewable energy support measures were brought under these three agreements simultaneously. In *Canada–Renewable Energy/FIT*, the parties disagreed over the order of analysis but both the Panel and the Appellate Body started their analysis with the GATT and the TRIMs Agreement.

3.2.1 The National Treatment Obligations of the GATT and TRIMs

GATT Article III:4 and TRIMs Article 2.1 are relevant to the regulation of energy subsidies to the extent that the challenged subsidies discriminate between imports and their like domestic

²⁹See *ibid.*, para. 7.7; WTO (2012) ‘*Canada – Measures Relating to the Feed-in Tariff Program* (DS426): The First Submission by the European Union’, para. 2.

³⁰WTO, ‘EU First Submission’.

³¹See Panel Report, *Canada–Renewable Energy/FIT*, para. 7.7.

³²See Appellate Body Report, *Canada–Renewable Energy/FIT*, para. 5.5.

³³The Appellate Body rejected Japan’s argument that the violations of GATT Article III:4 and Article 2.1 of the TRIMs Agreement entail different implementation obligations. See *ibid.*, para. 5.95.

³⁴See Panel Report, *United States – Certain Measures Relating to the Renewable Energy Sector (US–Renewable Energy)*, WT/DS510/R, circulated 27 June 2019, para. 7.348 (citing *Brazil–Taxation*). The Appellate Body has also opined that the fact that the challenged measure found to provide an ‘advantage’ within the meaning of the TRIMs Agreement (and thereby GATT Article III:4) is insufficient to prove the existence of a ‘benefit’ under the SCM Agreement. See Appellate Body Report, *Canada–Renewable Energy/FIT* (n 39), paras. 5.208–5.210.

counterparts. It is not surprising then that all the support measures that have been the subject of complaints under these two provisions were those with LCRs. The Appellate Body has long established the three elements necessary to determine the inconsistency of government measures with the national treatment rule of GATT Article III:4. These elements are that the challenged measure is a 'law, regulation or requirement affecting their internal sale, offering for sale, purchase, transportation, distribution, or use'; the imported and domestic products are like products; and the imported products are accorded less favourable treatment than the like domestic products.³⁵ The renewable energy support measures in all the four cases that went at least to the panel stage were found to be inconsistent with Article III:4 and thus Article 2.1 of the TRIMs Agreement. The LCRs in all the four cases accorded less favourable treatment to imported renewable energy generation equipment than to like domestic products.

The Panel in *Canada–Renewable Energy/FIT* took the quickest route to establishing the inconsistency of the Canadian LCRs with GATT Article III:4 and TRIMs Article 2.1 by starting its analysis with the latter. TRIMs Article 2.1 prohibits TRIMs that are inconsistent with GATT Article III:4. TRIMs Article 2.2 in turn provides an illustrative list of TRIMs that are inconsistent with GATT Article III:4. Since LCRs are expressly listed in paragraph 1(a) of the TRIMs Illustrative List, it was straightforward for the Panel to conclude that the Canadian LCRs were inconsistent with GATT Article III:4 and thereby TRIMs Article 2.1. The Appellate Body upheld the Panel's decision to exercise judicial economy on Japan's standalone claim under Article III:4.³⁶ The *India–Solar Cells* Panel took the same route to conclude that the Indian LCRs were inconsistent with GATT Article III:4 and thereby TRIMs Article 2.1. However, despite having already concluded the inconsistency of the LCRs with Article III:4 by virtue of the TRIMs Illustrative List, the Panel went on to consider the standalone claim under Article III:4 under the guise of case-specific circumstances and reaffirmed the inconsistency of the Indian LCRs with GATT Article III:4.³⁷ The *US–Renewable Energy* Panel took the long route by first analysing the claims under GATT Article III:4 and then exercising judicial economy on India's claim under the TRIMs Agreement. Two important factors seem to have led the Panel to this route. First, India presented its claim in such a way that its claims under the TRIMs and SCM Agreements emanate from the violation of GATT Article III:4. This seems to have convinced the Panel to first tackle the claims under GATT Article III:4 and venture into the other claims only to the extent that it is necessary for the resolution of the dispute. Second, unlike the respondents in *Canada–Renewable Energy/FIT* and *India–Solar Cells*, the United States was adamant that the Panel should exercise its discretion to use judicial economy on India's claims that were not necessary to the satisfactory settlement of the dispute. It is worth recalling here that allegation of *obiter dicta* was one of the reasons the United States cited as a justification for blocking the appointment of Appellate Body Members.³⁸ The Panel, ostensibly conscious of this allegation, exercised judicial economy on India's TRIMs claim under the guise that such a finding is unnecessary to provide a positive solution to the dispute.³⁹

Justifying Measures Inconsistent with the National Treatment Obligation. The challenged renewable energy support measures in the four disputes that went at least to the panel stage were found unlawful either under GATT Article III:4 and TRIMs Article 2.1 (*Canada–Renewable Energy/FIT* and *India–Solar Cells*) or just under GATT Article III:4 (*US–Renewable Energy*). Once their inconsistency with these provisions is established, the next step in the analysis is to

³⁵See Appellate Body Report, *Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef* (Korea–Various Measures on Beef), WT/DS161/AB/R and WT/DS169/AB/R, adopted 10 January 2001, para. 133.

³⁶See Appellate Body Report, *Canada–Renewable Energy/FIT* (n 39), paras. 5.86–5.105.

³⁷See Panel Report, *India – Certain Measures Relating to Solar Cells and Solar Modules* (*India–Solar Cells*), WT/DS456/R, adopted 14 October 2016, para. 7.79–7.99.

³⁸H. Gao (2018) 'Dictum on Dicta: Obiter Dicta in WTO Disputes', *World Trade Review* 17, 509.

³⁹See *US–Renewable Energy* (n 33), paras. 7.353–7.534.

determine whether there are legal provisions that exempt them from the national treatment obligations contained in these provisions – provided the respondent invoked one. The United States did not invoke any such provision in *US–Renewable Energy*. In *Canada–Renewable Energy/FIT*, Canada relied on the government procurement derogation under GATT Article III:8(a). India invoked both GATT Articles III:(8(a) and XX (d)&(j) in *India–Solar Cells*. We will consider the jurisprudence on these two provisions separately.

The Limits of the Government Procurement Exemption. First, the complainants’ government procurement argument and the findings of the Appellate Body in these three cases were essentially similar. GATT Article III:8(a) provides that:

The provisions of this Article shall not apply to laws, regulations or requirements governing the procurement by governmental agencies of products *purchased for governmental purposes and not with a view to commercial resale* or with a view to use in the production of goods for commercial sale [*emphasis added*].

Canada and India argued that this provision puts their FIT programs outside the scope of application of Article III:4 because the attached LCRs were ‘laws and requirements’ that govern the procurement of renewable electricity for government purposes, and not with a view to commercial resale or with a view to use in the production of goods for commercial sale. The key argument of the respondents in both cases was that Article III:8(a) was not applicable to the challenged FIT programs because the products allegedly procured by the governments (electricity) and less favourably treated (renewable electricity generation equipment) are markedly different. The Panel in *Canada–Renewable Energy/FIT* found that although the purchase of electricity under the FIT program qualifies as ‘procurement’, the LCRs were not covered by the derogation in Article III:8(a) because the procurement was undertaken with a view to commercial resale.⁴⁰ The Appellate Body upheld this finding, albeit with modified reasoning. It found that Article III:8(a) did not cover the FIT program not because Canada procured electricity with a view to commercial resale, but rather because ‘Article III:8(a) does not cover discriminatory treatment of the equipment used to generate the electricity that is procured by the Government’.⁴¹ This finding has made it clear that WTO Members can rely on the government procurement derogation of Article III:8(a) to exempt their LCRs from the national treatment obligations only to the extent that their minimum LCRs apply to the product procured by the government (renewable electricity). This makes the government procurement derogation ineffective – if not irrelevant – to shield renewable energy LCRs. Governments do not need LCRs to ensure the local generation of renewable electricity from solar panels and wind power. Cross-border trade in renewable electricity is still in its infancy and is confined for now to neighbouring countries, to cause at best international trade concerns.⁴² Most renewable electricity is currently produced locally. What governments use the LCRs for is rather for promotion of local renewable energy equipment manufacturing. The government procurement derogation allows WTO Members to discriminate between imported and domestically produced renewable energy equipment when they are purchasing such equipment for their own use. For example, a government agency that purchases solar panels to generate rooftop electricity for use in its offices or free distribution to the public can discriminate between locally manufactured and imported solar panels. However, the scale of such renewable energy projects is not significant enough to raise trade concerns in the first place.

⁴⁰Panel Report, *Canada–Renewable Energy/FIT* (n 35), para. 7.151.

⁴¹*Ibid.*, at 5.84.

⁴²However, it is worth noting that advances in electricity transmission technology are making the transportation of electricity over long distance relatively easier. See F.M. Abbott (2017) ‘Transfer of Technology and a Global Clean Energy Grid’, in T. Cottier and I. Espa (eds.), *International Trade in Sustainable Electricity: Regulatory Challenges in International Economic Law*. Cambridge University Press.

The Relevance of GATT Article XX. Second, neither Canada nor the United States invoked any of the general exceptions for otherwise GATT-inconsistent measures contained in GATT Article XX. India was the only respondent that has so far attempted to justify its renewable energy LCRs under Article XX.⁴³ The Appellate Body has long established that determining the justifiability of GATT-inconsistent measures under Article XX involves a two-tier test. The measure must be provisionally justified under one of the exhaustive list of exceptions and then pass the more rigorous chapeau test. The exhaustive list contains a broad range of policy justifications from public morals and public health to environment and labour conditions. The exceptions most frequently invoked in trade and environment disputes are the ones contained in Article XX(b) and (g). It is curious that India invoked neither of these provisional justifications. India opted for two other exceptions as potential justifications for its LCRs – paragraph (d) and (j). The Panel and the Appellate Body rejected India's arguments under both paragraphs.

GATT Article XX(d). Article XX(d) justifies otherwise GATT-inconsistent measures necessary to secure compliance with laws or regulations that are not inconsistent with GATT provisions. India submitted that its LCRs were 'integral to its compliance with both domestic and international law obligations to ensure ecologically sustainable growth while addressing India's energy security challenge, and ensuring compliance with its obligations relating to climate change'.⁴⁴ India alleged that such obligations stem from four domestic and four international instruments.⁴⁵ The Appellate Body found the provisions of the domestic instruments too 'hortatory, aspirational, declaratory', and 'solely descriptive' to constitute 'laws and regulations' within the meaning Article XX(d).⁴⁶ It agreed with the Panel that these instruments lacked the necessary degree of normativity and specificity to qualify as 'laws and regulations' for the purpose of Article XX (d). With respect to the international instruments, the Appellate Body held that the term 'laws and regulations' in Article XX(d) refers only to domestic laws and regulations and that international instruments qualify as 'laws and regulations' only to the extent that they form part of India's domestic legal system. Having found that none of the four identified international instruments had a direct effect in India, the Appellate Body concluded that India had failed to establish the existence of 'laws and regulations' within the meaning of Article XX(d).⁴⁷ The findings of the Appellate Body indicate the difficulty of justifying renewable energy LCRs under Article XX(d). India's attempt failed at the first hurdle because the domestic and international instruments it identified either lacked the necessary level of normativity or enforceability in India. This in itself is not a high threshold to meet. WTO Members can overcome this by introducing binding domestic legislation that requires the promotion of renewables. However, having such laws and regulations is only the first step. They must establish further that such laws and regulations mandate the more favourable treatment of domestic renewable energy equipment and then pass the more rigorous test of the chapeau.

GATT Article XX(j). India's invocation of Article XX(j) is interesting not least because this was the first time this exception was invoked in its nearly 70 years of existence. Article XX(j) offers protection to otherwise GATT-inconsistent measures that are 'essential to the acquisition or distribution of products in general or local short supply'. India alleged that solar cells and modules were products in short supply in India and its LCRs were essential to their acquisition. India couched its defence under this exception in energy security terms and the importance of developing domestic manufacturing capacity of solar cells and modules to overcome

⁴³ Appellate Body Report, *India – Certain Measures Relating to Solar Cells and Solar Modules (India–Solar Cells)*, WT/DS456/AB/R, adopted 14 October 2016.

⁴⁴ See *India–Solar Cells* (n 44), para. 7.268.

⁴⁵ The international instruments were the Preamble to the *Marrakesh Agreement Establishing WTO Agreement*, the UNFCCC, the *Rio Declaration on Environment and Development*, and the *UNGA Resolution Adopting the Rio+20 Document*. See *India–Solar Cells* (n 37), paras. 7.269 and 7.275.

⁴⁶ See *India–Solar Cells* (n 50), para. 5.133.

⁴⁷ See *ibid.*, paras. 5.137–5.149.

supply-related risks. It maintained that the acquisition and distribution of domestically manufactured solar cells and modules was essential to its overall objectives of energy security and ecologically sustainable growth. India further argued that continued overreliance on imports of solar cells and modules exposes the country to the risk of disruption in the supply of solar cells and modules.

The Appellate Body disagreed with India on four grounds. First, it upheld the finding of the Panel that the term ‘products in general or local short supply’ refers ‘to a situation in which the quantity of available supply of a product, from all sources, does not meet demand in a relevant geographical area or market’.⁴⁸ It seized on this to conclude that the lack of domestic supply was insufficient to make solar cells and modules ‘products of general or local short supply’. It further noted that such products would have qualified as products of general or local short supply only if India had established that the quantity of solar cells and modules available from all sources was inadequate to meet the demand for such products in India. Second, it echoed the view of the Panel that India had not experienced an actual disruption in the supply of solar cells and modules.⁴⁹ Underlying this consideration is the supposition that Article XX(j) is available only to measures taken in relation to products that have been in general or local short supply. Such interpretation precludes the application of Article XX(j) to measures essential to the acquisition or distribution of products that are potentially in short supply. Third, the risk of supply disruption applies equally to both domestic and imported solar cells and modules.⁵⁰ Fourth, the policy objectives underlying the measures do not relieve India of its burden to establish that the products were of local or general short supply.⁵¹ The Appellate Body was clearly of the view that insofar as India can source solar cells and modules internationally, such products cannot qualify as products of general or local short supply to justify the LCRs and their objective of creating domestic manufacturing capacity.

3.2.2 *The Subsidy Rules of the SCM Agreement*

Ironically, much of the litigation over renewable energy support measures has bypassed the legal framework established for the governance of subsidies – the SCM Agreement. The WTO rules on subsidies featured prominently only in the two disputes against the Canadian FIT program. The findings of the Appellate Body in *Canada–Renewable Energy/FIT* effectively took the SCM Agreement out of the limelight. In these disputes, Japan and the EU alleged that the FIT program the Canadian province of Ontario introduced constituted a prohibited subsidy within the meaning of the SCM Agreement. A government support measure constitutes a ‘subsidy’ within the meaning of the SCM Agreement insofar as it takes one of the four forms of ‘financial contributions’ listed in Article 1.1(a)(1) or income or price support (Article 1.1(a)(2)) and confers a ‘benefit’ upon the recipient (Article 1.2). The Ontario government purchased renewable electricity through the FIT program at a guaranteed above market price.

The complainants alleged that this constituted a government ‘purchase of goods’, direct and/or potential direct transfers of funds as well as a ‘price support’. The Appellate Body upheld the characterization of the FIT program by the Panel as a government ‘purchase of goods’ within the meaning of Article 1.1(a)(1)(iii). Perhaps the relatively controversial issue here would have been whether electricity qualifies as a ‘good’, but Canada did not contest the treatment of ‘electricity’ as a ‘good’. This was relevant given that the SCM Agreement applies only to trade in goods and that Article 1.1(a)(iii) excludes government purchases of services. The Panel simply noted – in a footnote – the absence of disagreement among the parties over the treatment of

⁴⁸See *ibid.*, para. 5.73.

⁴⁹See *ibid.*, para. 5.76.

⁵⁰See *ibid.*, para. 5.77.

⁵¹See *ibid.*, paras. 5.78–79.

electricity as a 'good' for the purpose of the SCM Agreement.⁵² It is noteworthy that contesting the treatment of 'electricity' as a 'good' would not have ruled out the characterization of the FIT program as another form of financial contribution or 'income or price support'.⁵³ However, as the Appellate Body noted, the legal characterization of the FIT program under Article 1.1(a) 'may have implications for the manner in which the assessment of whether a benefit is conferred is to be conducted'.⁵⁴ Nor would it mean that Canada would have been successful with such an argument. The EU noted during the proceedings that 'the EU and US' undertook tariff commitments on electricity and Canada included electricity in its tariff schedule without undertaking any binding commitments.⁵⁵ Such commitments suggest that at least some WTO Members consider electricity as a 'good', but a definitive clarification from the Appellate Body would have added much-needed clarity and certainty.

Much of the controversy in these disputes concerned whether the FIT program conferred a 'benefit' within the meaning of Article 1.1(b), thereby qualifying as a 'subsidy'. The established legal standard for establishing the existence of a 'benefit' under Article 1.1(b) involves determining whether the financial contribution has made the recipients 'better off' than they would otherwise have been absent the financial contribution.⁵⁶ Such a determination requires identifying a price benchmark and comparing the position of the recipient in the marketplace with and without the financial contribution. The complainants submitted numerous competitive wholesale electricity market price benchmarks for such a comparison. The Panel majority rejected the proposed price benchmarks for different reasons and ultimately concluded that competitive wholesale electricity market prices are inappropriate to serve as price benchmarks because of their inability 'to attract the degree of investment in generating capacity needed to secure a reliable supply of electricity'.⁵⁷ It reasoned that such a goal 'can only be achieved by means of government intervention in what would otherwise be unacceptable competitive market outcomes'.⁵⁸ In doing so, the Panel introduced policy consideration into the benefit analysis under Article 1.1(b) of the SCM Agreement.

The Appellate Body did the same but in a much more nuanced and complex manner. It restructured the benefit analysis in such a way that it does not only need to start with the determination of the relevant market but also that such determination must take into account both demand and supply side factors.⁵⁹ The Appellate Body concurred with the Panel that final consumers may not distinguish electricity based on generation technology, but faulted the Panel for solely relying on demand-side substitutability to conclude that there was only a single market for electricity generated from all sources of energy.⁶⁰ It found that supply side factors such as cost structures, operating costs, and characteristics differentiate renewable electricity from conventional electricity. It also noted that unlike final consumers at the retail level the government distinguished between conventional and renewable electricity while purchasing electricity at the wholesale level to eventually hold that conventional and renewable electricity are not substitutable.⁶¹ This determination led the Appellate Body to conclude that the relevant market for the purpose of the benefit analysis was not the competitive wholesale electricity market as a whole but rather the competitive markets for renewable electricity.

⁵²Panel Report, *Canada–Renewable Energy/FIT* (n 35), ft 46.

⁵³*Ibid.*, para. 5.119.

⁵⁴*Ibid.*, para. 5.130.

⁵⁵See *ibid.*, ft 46.

⁵⁶See Appellate Body Report, *Canada – Measures Affecting the Export of Civilian Aircraft (Canada–ircraft)*, WT/DS70/AB/R, adopted 20 August 1999, para. 157.

⁵⁷Panel Report, *Canada–Renewable Energy/FIT*, para. 7.312.

⁵⁸*Ibid.*

⁵⁹See *ibid.*, paras. 5.170–5.171.

⁶⁰See *ibid.*, paras. 5.169–5.179.

⁶¹*Ibid.*

The consideration of supply-side factors to narrow down the relevant market was a novel legal technique the Appellate Body introduced to make it difficult for the complainants to establish the existence of a ‘benefit’ under Article 1.1(b). The comparison was no longer between the FIT prices and electricity prices in competitive electricity markets but rather between the FIT prices and electricity prices in competitive renewable electricity markets.

The complainants argued that renewable electricity markets would not have even existed had it not been for the government intervention and this clearly indicates that the FIT program conferred a benefit within the meaning of Article 1.1(b). The Appellate Body agreed that such markets would not have existed without the government intervention, but the presence of government intervention does not exclude per se treating the resulting prices as market prices for the benefit comparison.⁶² The Appellate Body thereby created a distinction between government interventions that create markets and government interventions in an existing market. The purpose of such a distinction was to say that a market-creating government intervention does not in and of itself constitute a subsidy but intervention in existing markets may amount to subsidies.⁶³ This consideration turned the benefit analysis from determining whether the FIT program has made the recipients better off than they would otherwise have been under market conditions to whether it has made them better off than they would have been in a government-created and competitive renewable electricity market. As such, it effectively turned the benefit analysis into a determination of whether the FIT prices were too generous. The Appellate Body tried to determine this by looking at renewable electricity prices in other government-created competitive renewable electricity markets, but was unable to complete the analysis due to lack of sufficient factual evidence on the record.

Justifying Measures Inconsistent with the SCM Agreement. Since none of the challenged renewable energy support measures has been found to be inconsistent with the SCM Agreement, the debate over the availability of legal grounds to justify measures that are otherwise inconsistent with the SCM Agreement remains largely hypothetical. However, with the expiry of the non-actionable category, it is safe to say that the SCM Agreement has no express exemption for measures that meets its definitional and specificity requirements no matter what their policy objective might be. I have explained in section 2 above and further in section 5 below how the absence of an express environmental exception under the SCM Agreement renders the trading regime incoherent. It also – coupled with the analysis above – confirms the green policy space deficit of the SCM Agreement. Perhaps the only open question concerning the justifiability of measures otherwise inconsistent with the SCM Agreement relates to the applicability of GATT Article XX. As explained in section 5 below, the possibility of extending the application of Article XX to the SCM Agreement through legal interpretation has become even more unlikely with the growing judicial activism criticism that brought about the demise of the Appellate Body. Overcoming the legal incoherence and closing the green policy space deficit requires legislative intervention through legal reform. We will consider the specific forms of such reforms in section 5, but it is imperative to note that the Appellate Body in *Canada–Renewable Energy/FIT* and the Panel in *US–Renewable Energy (India)*, diverted attention away from the call for legal reform by shielding the SCM Agreement from environmental criticism. Had they established the existence of a subsidy, they would have had no option but to declare such subsidies unlawful under the SCM Agreement. Such a finding would have reinforced the prevailing view in the trade and environment scholarship that the SCM Agreement suffers from a green policy space deficit.⁶⁴ Instead

⁶²See Ibid., para. 5.185.

⁶³See Ibid., para. 5.188.

⁶⁴See R. Howse (2013) ‘Securing Policy Space for Clean Energy under the SCM: Alternative Approaches’, in ICTSD (ed.), *Clean Energy and the Trade System Group Proposals and Analysis* (ICTSD); S.Z. Bigdeli (2011) ‘Resurrecting the Dead? The Expired Non-Actionable Subsidies and the Lingering Question of Green Space’, *Manchester Journal of International Economic Law* 8, 2; L. Rubini (2014) “‘The Good, the Bad, and the Ugly.’ Lessons on Methodology in Legal Analysis

of directly confronting the problem and revealing the policy space deficit, the WTO adjudicators chose to hide behind the benefit analysis and judicial economy.

4. Has the Case Law on Renewable Energy LCRs Reached the End of the Line?

What is unequivocal from the case law is that renewable energy support measures with LCRs stand no, if any, chance of passing WTO scrutiny.⁶⁵ The Panels and Appellate Body have made it abundantly clear that such measures are inconsistent with the national treatment obligations contained in GATT Article III:4 and TRIMs Article 2.1. The respondents in the early disputes pursued different strategies to justify their measures. Both Canada and India invoked the government procurement derogation in GATT Article III:8(a).⁶⁶ India also invoked GATT Article XX(d) and (j) in *India–Solar Cells*. The Appellate Body rejected each justification. It was no surprise then that the latest episode in this long line of disputes saw the invocation of none of the potential justifications for discriminatory renewable energy support measures. Is the decision of the United States not to invoke any justification in *United States–Renewable Energy* an indication that the case law on LCRs has reached the end of the line?

The Appellate Body has effectively shut down the government procurement route to justify renewable energy LCRs by clarifying that this derogation is available only to the extent that the products procured by the government and discriminated against are the same. I argued above and elsewhere that the government procurement derogation is of limited relevance to renewable energy LCRs because governments procure renewable electricity but discriminate against foreign renewable electricity generation equipment.⁶⁷ While we cannot rule out the possibility of future respondents invoking this derogation, it appears clear that the government procurement defence of renewable energy LCRs has hit a wall. The decision of the United States not to invoke this derogation reflects the growing understanding of its limitations.

The other potential justifications for renewable energy LCRs are contained in GATT Article XX. I noted in section 3.2 that India is the only respondent to invoke Article XX to defend its renewable energy LCRs. Article XX contains general exceptions for measures that are otherwise inconsistent with other GATT provisions. The most frequently invoked exceptions to justify trade-related environmental measures have been the ones contained in paragraphs (b) and (g). It is curious that India (or the other respondents, for that matter) invoked neither of these provisions to justify its renewable energy LCRs. India relied on paragraphs (d) and (j) to argue that the LCRs were necessary to secure compliance with laws and regulations and essential to the acquisition or distribution of products in general or local short supply. The specific facts of the case and the reasoning of the Appellate Body suggests that there is some room to justify renewable energy LCRs under this provision, but how wide this room is remains uncertain. It is now well-established that Article XX entails a two-tier test whereby the GATT-inconsistent measures need to pass the provisional justification test under one of the paragraphs before facing the ‘unjustifiable discrimination’ test of the chapeau.

In *India–Solar Cells*, the LCRs failed the provisional justification test under both paragraphs (d) and (g). The Appellate Body rejected India’s argument under Article XX(d) mainly because the legal instruments India presented as requiring compliance were either not ‘laws and regulations’ or fell short of expressly enjoining India to subsidize renewables. One way around this is to introduce environmental legislation that enjoins governments to promote (and even subsidize)

from the Recent WTO Litigation on Renewable Energy Subsidies’, *Journal of World Trade* 48, 895; Cosbey and Mavroidis, *supra*, n 3).

⁶⁵See also M.M. Fang (2021) ‘Local Content Measures and the WTO Regime: Addressing Contentions and Trade-Offs’, in D.S. Olawuyi (ed.), *Local Content and Sustainable Development in Global Energy Markets*. Cambridge University Press, at 41–62.

⁶⁶See *Canada–Renewable Energy/FIT*; *India – Solar Cells* (n 50).

⁶⁷See Asmelash, *supra* note 3, at 276.

renewables. India's choice of legal instruments suggests that there is a dearth of such instruments both at the national and international levels. The global climate change regime remains reluctant to endorse a particular energy technology or policy instrument necessary for the reduction of greenhouse gas emissions. The politics in the global climate change regime makes any change from the status quo difficult to achieve anytime soon. Governments can and have introduced national legislation that requires the promotion of renewables but there are many factors that undermine such efforts. For example, the fear of potential investment arbitration claims in the event of policy change may perpetuate reluctance. It is also important to remember that passing the provisional justification is only half of the legal equation. The even more difficult part of the two-tier test is the chapeau. Their inherently discriminatory nature makes LCRs unlikely to pass this second test, since there are 'less trade-restrictive' alternatives that help achieve the underlying environment objectives. The key question is whether such 'less trade-restrictive' alternatives can achieve the associated socio-economic and political benefits of renewable energy LCRs. These associated benefits such as making renewable energy subsidies politically palatable at the domestic level are important enablers of renewable energy support measures.⁶⁸ Policymakers may need to reconsider their articulation of the objectives underlying renewable energy LCRs to stand a better chance of passing the 'unjustifiable discrimination' test of the chapeau. The 'less-trade restrictive' measures that can achieve the environmental objectives of renewable energy LCRs may not be able to also achieve their associated socio-economic and political benefits. It remains to be seen whether future respondents resort to Article XX(d) to justify their LCRs.

The Article XX (j) justification relies on establishing whether and to what extent renewable energy equipment qualifies as products in 'general or local short supply'. In *India–Solar Cells*, India failed to establish this, and both the Panel and the Appellate Body concluded that solar cells and modules are not products of general or local supply. The corona-virus pandemic has revealed that the concept of a product in 'general or local short supply' is not static. Not many people would have considered masks or ventilators as products in short supply before the pandemic, but the pandemic has shown that this is the case. In fact, any product can become one that is in general or local short supply. In a global climate change crisis, any product that helps reduce greenhouse gas emissions is a product in short supply – if we had enough of these products we would have been able to reduce our greenhouse gas emissions. It would be interesting to see if respondents in post-pandemic trade disputes over renewable energy LCRs test the resolve of the adjudicators on this once again. If a renewable energy LCR passes the provisional justification under paragraph (j) it arguably has a better chance of passing the chapeau test given that other measures are unlikely to achieve the underlying objective of ensuring a stable and reliable domestic supply of renewable energy equipment. A country can stockpile renewable energy equipment from imports, but this is not feasible in a global crisis where countries impose export restrictions or discourage renewable energy equipment exports.

5. The SCM Agreement: Will the Barking Dog Ever Bite?

Ten years after Japan initiated the first dispute against renewable energy support measures, the scope of the policy space available under the SCM Agreement to subsidize renewables remains uncertain. WTO Panels and the Appellate Body did their best to dodge the question first in *Canada–Renewable Energy/FIT* and then in *US–Renewable Energy* using different legal techniques. Trade agreements typically leave policy space for governments to pursue non-economic objectives in two ways. The first one is to exclude certain trade measures from their scope of application. For example, the SCM Agreement excludes the provision of general infrastructure from the definition of a 'subsidy' and thereby from its scope of application.⁶⁹ The second and

⁶⁸See Meyer, *supra* note 26.

⁶⁹See Art 1.1(a)(1)(iii), SCM Agreement.

most popular approach is to attach exceptions. GATT Article XX is the embodiment of this exception-based approach. I also noted in section 2 that the SCM Agreement originally embraced this approach, but the provisional exceptions for environmental, regional and research and development purposes contained in Article 8 expired more than 20 years ago. Since the expiry of Article 8, any government support measure that meets the definitional and specificity requirements under Articles 1 and 2 is either prohibited or actionable under the SCM Agreement. The only way of saving such support measures under the extant subsidy rules is therefore to read them outside the scope of the SCM Agreement through the definitional or specificity requirements. The Appellate Body followed this approach in *Canada–Renewable Energy/FIT* as we have seen in section 3.2.2 above.

The Appellate Body introduced policy considerations into the definitional requirement to read the FIT program outside the scope of application of the SCM Agreement. This enormous act of judicial activism saved the FIT program from prohibition under Article 3.1(b) of the SCM Agreement. The Appellate Body was well aware that once the FIT program passes the definitional requirement its only destination was prohibition under Article 3.1(b). However, it is worth noting that the Appellate Body exercised such judicial activism in the shadow of the national treatment obligations of GATT Article III:4 and TRIMS Article 2.1. The fact that the Canadian FIT program was WTO-inconsistent anyway was always going to lessen the potential backlash against such judicial activism. This was evident from the reaction of WTO Members to the Appellate Body reports. Only the United States and Australia expressed any concern and the latter went only as far as calling the membership ‘to reflect further and discuss the consequences of such an approach’.⁷⁰ The reactions might have been different had it not been for the WTO-inconsistency findings under the GATT and the TRIMS Agreement.

The decision of the United States to withdraw its claims under the SCM Agreement in *India–Solar Cells* in the aftermath of the *Canada–Renewable Energy/FIT* reports was an early indication of how the Appellate Body managed to silence the barking dog by steering the controversy over renewable energy LCRs away from the SCM Agreement. India brought back the SCM Agreement into the picture but the *US–Renewable Energy* Panel exercised judicial economy to keep the SCM Agreement out of the limelight. However, for how long? It remains uncertain as to what extent such judicial interventions alleviate the threat posed by the SCM Agreement to the subsidization of renewables. The GATT and the TRIMS Agreement are relevant only to the extent that the support measures are discriminatory. The wide range of renewable energy support measures that are not contingent upon the use of domestic over imported renewable energy equipment remain vulnerable to legal action under the SCM Agreement – not under the GATT or the TRIMS Agreement. Is the judicial policy space that the Appellate Body created in *Canada–Renewable Energy/FIT* sufficient to protect renewable energy support measures from future scrutiny under the SCM Agreement?

At the heart of this judicial policy space is the contraction of the relevant market for the benefit comparison from the electricity market as a whole to renewable electricity markets and the distinction between market-creating and market-correcting government interventions. These ‘legal acrobatics’⁷¹ or ‘legal fiction’⁷² have made establishing the existence of a ‘benefit’ under Article 1.1(b) of the SCM Agreement even more cumbersome but not impossible. A ‘benefit’ now exists not just when a renewable energy support measure creates a new market for renewables but when the support measure provides far more generous remuneration than a government-created but competitive renewable electricity market. Not only is it relatively more difficult to find such price benchmarks but also such benchmarks are less likely to reveal the existence of a ‘benefit’ than general electricity market benchmarks. In *Canada–Renewable Energy/FIT* the Appellate

⁷⁰See WTO (2013) ‘Minutes of Meeting Held on 24 May 2013’, WT/DSB/M/332, para. 8.6.

⁷¹See Cosbey and Mavroidis, *supra* note 3.

⁷²Rubini, *supra* note 63.

Body did not say that the FIT program did not confer a 'benefit' – it was simply unable to complete the analysis due to insufficient facts on government-created competitive renewable electricity markets. This was not a surprise given that such market benchmarks did not receive much consideration at the panel stage. The question is would the Appellate Body have found the existence of a 'benefit' had there been sufficient factual evidence? And more importantly, would future complainants find such price benchmarks and establish the existence of a 'benefit' under the new benefit approach?

The rapidly changing renewable energy policy and market landscape suggest that the judicial policy space of *Canada–Renewable Energy/FIT* may not shelter renewable energy support measures from scrutiny under the SCM Agreement for long. Renewable energy markets are now up and running in most countries. Many countries have also started replacing their traditional support measures with market-based support measures such as competitive auctions.⁷³ Unlike in *Canada–Renewable Energy/FIT*, future trade disputes are more likely to involve market correcting than market-creating government interventions as most countries have now created renewable energy markets of varying sizes. Such considerations suggest that the Appellate Body may have silenced the SCM Agreement for now, but it has not taken away its ability to bark and even bite renewable energy support measures.

Some scholars consider the SCM Agreement to pose little threat to the subsidization of renewables. Espa and Duran, for example, argue against the widespread call in the trade and environment scholarship for green policy space under the SCM Agreement.⁷⁴ Their argument against the 'conventional wisdom' that the SCM Agreement needs reform to safeguard policy space for renewable energy support measures is based on three key considerations. First, that the legality of discriminatory renewable energy support measures such as LCRs 'does not raise primary concerns from a climate change mitigation viewpoint'.⁷⁵ It is true that LCRs are primarily targeted at economic than environmental objectives. However, it is important not to overlook their role in enabling the subsidization of renewables and making the energy transition just and equitable. Studies have long shown that LCRs help garner political support for the subsidization of renewables in many countries.⁷⁶ From this political economy perspective, it has been argued that prohibiting the use of LCRs risks throwing the baby (e.g. FITs) with the bathwater (i.e. LCRs).⁷⁷ It is also important to recognize the role of LCRs in retaining the economic benefits from the subsidization of renewables at the local level. This is particularly important in enhancing the participation of local communities in the global fight against climate change.⁷⁸ Local discriminatory measures help local communities make the transition away from fossil fuels without risking their livelihood. Tackling the climate change crisis calls for a rapid energy transition that is not only environmentally sustainable but also just and equitable.

The second key consideration is that non-discriminatory renewable energy support measures are less likely to be inconsistent with the SCM Agreement due to 'geographical and infrastructural constraints on cross-border electricity trade'.⁷⁹ Once again, it is true that the subsidization of renewable electricity per se is unlikely to face legal challenge due to the constraints noted. However, the provision of cheap renewable electricity can be challenged as an input subsidy

⁷³REN21, supra note 1), at 19 ('At least 68 renewable energy auctions or tenders were held across at least 41 countries').

⁷⁴See Espa and Marín Durán, supra n. 3.

⁷⁵Ibid., at 651.

⁷⁶See J.-C. Kuntze and T. Moerenhout (2013) 'Local Content Requirements and the Renewable Energy Industry: A Good Match?', International Centre for Trade and Sustainable Development.

⁷⁷The problem with this political feasibility argument for LCRs is that given the popularity of protectionist measures it opens a door for measures on the grounds that they were a necessary evil to enable the passage of some good policy. See Cosbey and Mavroidis, supra note 3, at 33.

⁷⁸See Meyer, supra note 26.

⁷⁹Espe and Marín Durán, supra note 3, at 651.

under the SCM Agreement.⁸⁰ It is also noteworthy that the non-discriminatory subsidization of renewable energy generation equipment can still be challenged as an actionable subsidy under the SCM Agreement (either via the unilateral or multilateral track).

Their final consideration is that the flexibility that the Appellate Body created through its benefit analysis in *Canada–Renewable Energy/FIT* dampens the threat of the SCM Agreement to the non-discriminatory subsidization of renewables.⁸¹ The limitations of the *de facto* policy space created by the Appellate Body have been examined above. Most importantly, this flexibility falls short of providing the certainty and predictability necessary to help accelerate the development and deployment of renewable energy technologies.

6. Conclusion and the Road Ahead

The ever-increasing environmental and economic importance of renewables suggests that trade disputes over renewable energy support measures are here to stay. There is now widespread recognition that governments need to intensify their renewable energy support measures to stand any chance of averting the catastrophic consequences of climate change. The increase in such measures, together with the fast-growing global demand for energy, will make the renewable energy industry even more attractive economically. The competition to dominate the attendant global market for renewable energy technologies will continue to generate more trade friction and disputes. The prevention and resolution of such disputes in a manner that helps accelerate the sustainable energy transition is imperative. This article has shown that the first ten years of litigation has brought neither finality nor certainty. It has settled some issues and left many others open. The jurisprudence is now settled that renewable energy LCRs are inconsistent with GATT Article III:4 and TRIMs Article 2.1 and the government procurement derogation in GATT Article III:8(a) does not provide shelter for renewable energy support measures with LCRs. Whether such measures find some shelter in GATT Article XX is yet to be seen. India was unsuccessful with its invocation of GATT Article XX (d) and (j), but the reasoning of the Appellate Body has left enough room for future respondents to try their luck.

Another key issue that remains open is the scope of the policy space under the SCM Agreement for the subsidization of renewables. The Appellate Body in *Canada–Renewable Energy/FIT* and the Panel in *US–Renewable Energy* managed to sidestep this issue, but the lack of an express exemption for subsidies with legitimate environmental objectives makes the SCM Agreement the single most important threat in the multilateral trading system to the subsidization of renewable energy sources. The current multilateral rules on subsidies discipline subsidies based on their effect on trade regardless of their underlying policy objectives. Whether the subsidy is environmentally harmful (e.g. fossil fuel subsidies) or beneficial (e.g. renewable energy subsidies) plays no role whatsoever in determining its consistency with the SCM Agreement. The Appellate Body's attempt at introducing policy considerations into the SCM Agreement through the backdoor in *Canada–Renewable Energy/FIT* is commendable but is neither a sustainable nor a methodologically coherent approach.⁸² The Appellate Body itself openly admitted that 'introducing legitimate policy considerations into the determination of benefit cannot be reconciled with Article 1.1(b) of the SCM Agreement',⁸³ but still went on to conflate establishing the existence of a 'subsidy' with justifying a subsidy.⁸⁴ This deliberate conflation paved the way for the incomplete conclusion that a renewable energy support measure that looks and sounds like a

⁸⁰For WTO disputes involving the provision of cheap electricity, see Appellate Body Report, *China – Countervailing and Anti-Dumping Duties on Grain Oriented Flat-Rolled Electrical Steel from the United States (China–GOES)*, WT/DS414/AB/R, adopted 16 November 2012; WTO (2017) 'DS519: China – Subsidies to Producers of Primary Aluminium', WT/DS519/1.

⁸¹Espa and Marín Durán, *supra* n. 3.

⁸²Rubini, *supra* note 63.

⁸³See Appellate Body Report, *Canada–Renewable Energy/FIT*, para. 5.185.

⁸⁴See Rubini, *supra* note 63, at 913.

‘subsidy’ was not a ‘subsidy’. The attendant policy space created by the Appellate Body will have relevance only to those countries with no prior renewable electricity markets. Since renewable electricity markets are now operational in most countries, the ‘market creation’ exception is unlikely to save support measures from scrutiny under the SCM Agreement in future disputes.

Over the last ten years, commentators have put forward a wide range of proposals to address the green policy space deficit in multilateral renewable energy subsidy governance. Such proposals range from resurrecting Article 8 of the SCM Agreement from the dead to adopting a climate waiver for renewable energy support measures.⁸⁵ None of these proposals has yet received any meaningful consideration within the multilateral trading system. There has been no concerted effort from WTO Members to reform the SCM Agreement since the eruption of the renewable energy subsidy disputes. Their lack of appetite to initiate legal reform is understandable given that they have already bitten more than they can chew. Most of the issues on the Doha agenda, including fisheries subsidies, are still awaiting resolution. The Appellate Body did not help matters. Its findings in *Canada–Renewable Energy/FIT* gave the wrong impression that the SCM Agreement poses little threat to the subsidization of renewables. Its overzealous effort to conceal the green policy space deficit of the SCM Agreement may have undermined any interest and urgency WTO Members might have had to address the deficit.

However, the climate change crisis calls for clarity and certainty around the international legal framework governing one of the most-popular policy measures to help accelerate the energy transition. Absent legal reform, the legality of renewable energy support measures under WTO law will lie in the hands of a dispute settlement system undergoing an existential crisis. The Appellate Body historically played a vital role in preserving policy space for non-trade public policy goals such as environmental protection.⁸⁶ Its active role has helped fill the gap left by the deadlock in multilateral trade negotiations. However, such activism has subjected the Appellate Body to considerable criticism from the US that eventually brought about its demise in 2019.⁸⁷ The absence of the Appellate Body has significant implications for the future of trade disputes over renewable energy support measures. On the one hand, it mitigates the threat of WTO rules to the subsidization of renewables. It allows WTO Members to systematically avoid compliance with WTO rules on renewable energy support measures by appealing ‘into the void’ WTO Panel ruling unfavourable to their renewable energy support measures.⁸⁸ However, this approach is neither sustainable nor tenable. First, it comes with substantial costs. As Pauwelyn pointed out, the escalation of appeals into the void undermines the overall effectiveness of the dispute settlement system and thereby the underlying interest of the Member concerned.⁸⁹ Appealing into the void also risks emulation by others and retaliation elsewhere.⁹⁰ The threat of retaliation is particularly pronounced against weaker WTO Members – making the resort to appeal into the void relatively more costly for such Members. Blocking Panel reports by appealing into the void may also harm the reputation of the Member concerned.⁹¹ Second, increased appeals into the void undermine the rule of law in the multilateral trading system. The attendant shift away from a rule-based international trade further weaken the ability of the multilateral trading system to provide the legal certainty and predictability necessary to promote the development and deployment of renewable energy technologies. The ex-post nature of the decision to appeal the unfavourable Panel ruling into the void further perpetuates

⁸⁵See Bigdeli, *supra* note 63; J. Bacchus (2017) ‘The Case for a WTO Climate Waiver’, CIGI 2017, Special Report.

⁸⁶See R. Howse (2016) ‘The World Trade Organization 20 Years On: Global Governance by Judiciary’, *European Journal of International Law* 27, 9.

⁸⁷See J. Pauwelyn (2019) ‘WTO Dispute Settlement Post 2019: What to Expect?’, *Journal of International Economic Law* 22, 297.

⁸⁸See *ibid.*, at 303 et seq.

⁸⁹*Ibid.*, at 306.

⁹⁰*Ibid.*

⁹¹*Ibid.*

the uncertainty. Third, given the ongoing efforts to restore the Appellate Body, appeal into the void is not a sustainable solution to the green policy space deficit in multilateral subsidy governance. To be sure, even if WTO Members find a way to resurrect the Appellate Body, the concerns about its judicial activism means that it is less likely to return with the same opportunity and enthusiasm for legal acrobatics. These four considerations argue against reliance on the strength or weakness of the dispute settlement system to address the green policy space deficit of the multilateral trading system.

The first best option to fill the policy space deficit is to negotiate a new sectoral agreement on energy or energy subsidies.⁹² Such an agreement is long overdue but unrealistic under the current political climate in the multilateral trading system. The over two decades of fisheries subsidies negotiations and the urgency of climate change suggest that a new agreement on energy subsidies will arrive too late, if it is achievable at all. The most practical way forward to ensure the mutual supportiveness of trade and environment on renewable energy subsidy governance is legal reform that entails minimum alternation to the existing rules.

There are at least three such options. The first one is a waiver.⁹³ Exempting renewable energy support measures from scrutiny under the SCM Agreement for a certain period avoids the need for substantive changes to the existing subsidy rules. Article IX:3 of the Marrakesh Agreement authorizes the Ministerial Conference and General Council to grant a waiver (by three-fourth majority of all Members) from any obligation under the SCM Agreement for an individual Member or a subset of Members (or all WTO Members).⁹⁴ The Appellate Body clarified that waivers are neither subsequent agreements nor amendments.⁹⁵ They will not result in the modification of the SCM Agreement, but will provide a temporary exception for renewables from the disciplines of the SCM Agreement. The only substantive requirement to obtain a waiver is establishing the existence of 'exceptional circumstances'. The climate change crisis and the attendant need to accelerate the sustainable energy transition meets any definition of an exceptional circumstance. The challenge is securing the illusive consensus for a waiver. Despite the three-fourths requirement, all previous waivers were adopted by consensus.

The second option is the application of GATT Article XX to the SCM Agreement. The applicability of Article XX beyond the GATT has been the subject of scholarly and judicial debate long before the eruption of the renewable energy subsidy disputes. Both sides of the debate recognize the importance of applying Article XX to the SCM Agreement but disagree on the existence of a legal basis to do so. The proponents advance several arguments, but the most prominent of these is that the SCM Agreement does not set out entirely new disciplines, but rather elaborates on and interprets the GATT disciplines on subsidies (Article XVI) and countervailing duties (Article VI).⁹⁶ Both the SCM Agreement and the GATT disciplines apply cumulatively and simultaneously – the former prevailing (as *lex specialis*) in case of conflict between the two.⁹⁷ This direct connection between the two agreements is taken to imply that Article XX applies to the SCM

⁹²See T. Cottier et al. (2011) 'Energy in WTO Law and Policy', in T. Cottier and P. Delimatsis (eds.), *The Prospects of International Trade Regulation: From Fragmentation to Coherence*, Cambridge University Press.

⁹³See Bacchus, *supra* note 84; Howse, *supra* note 63.

⁹⁴See Marrakesh Agreement, Art IX:3-4.

⁹⁵See Appellate Body Report, *European Communities — Regime for the Importation, Sale and Distribution of Bananas — Second Recourse to Article 215 of the DSU by Ecuador (EC-Bananas III (Article 215 – Ecuador II))*, WT/DS27/AB/RW2/ECU, adopted 11 and 22 December 2008, para. 382.

⁹⁶See, e.g., Rubini, *supra* note 3, at 562; J. Flett (2016) 'Preserving the Balance between Trade and Non-Trade Interests through a Systematic Interpretation of WTO Subsidies Law', in L. Rubini and J. Hawkins (eds.), *What Shapes the Law? Reflections on the History, Law, Politics and Economics of International and European Subsidy Disciplines*, European University Institute, at 94–95.

⁹⁷See General Interpretative Note to Annex 1A of the Agreement Establishing the World Trade Organization (signed 15 April 1994, entered into force 1 January 1995); Appellate Body Report, *Brazil – Measures Affecting Desiccated Coconut (Brazil-Desiccated Coconut)*, WT/DS22/AB/R, adopted 20 March 1997.

Agreement since it applies to Articles VI and XVI.⁹⁸ The Panel in *US–Pipe Line* followed this line of argument in determining whether GATT Article XXIV justifies measures that are inconsistent with the provisions of the Agreement on Safeguards. It found that due to ‘the close interrelation between Article XIX and the Safeguards Agreement ... if an Article XXIV defence is available for Article XIX measures, by definition it must also be available for measures covered by the disciplines of the Safeguards Agreement’.⁹⁹ However, the Appellate Body declined to address this issue and declared the finding of the panel moot.¹⁰⁰

China also pursued this line of argument to invoke Article XX in defence of measures inconsistent with its Accession Protocol. The Appellate Body found in *China–Rare Earths* that the applicability of GATT Article XX beyond the GATT requires ‘a careful analysis of the relevant provisions at issue, their proper context, as well the nature of the measures at issue’.¹⁰¹ This finding not only reversed the (miss)-understanding borne out of its findings in *China–Raw Materials* that the cross-application of GATT Article XX depends on the existence or otherwise of express reference to GATT Article XX, but also left the door wide open for arguments for the application of Article XX beyond the GATT. The United States has recycled this argument most recently in *US–Origin Marking (Hong Kong, China)*. It argued that the security exception contained in GATT Article XXI applies to measures inconsistent with the Agreement on Rules of Origin (ROO Agreement) and the Agreement on Technical Barriers to Trade (TBT Agreement) mainly because the two Agreements are elaborations of the relevant GATT provisions and that they make multiple textual references to the GATT.¹⁰² This dispute may provide much needed clarity around the application of Article XX to the SCM Agreement. If the adjudicators find Article XXI to apply to the TBT and/or ROO Agreements, there is no logical reason whatsoever why Article XX should not apply to the SCM Agreement.

Those that question the applicability of Article XX to the SCM Agreement contend that neither the text nor the context of the SCM Agreement supports such an interpretation.¹⁰³ They consider the presence of Article 8 of the SCM Agreement (albeit provisionally) in particular as a clear indication of the negotiators’ intention not to apply Article XX to the SCM Agreement. The gist of their argument is that Article 8 represents the preference of the negotiators for a tailor-made exception for the SCM Agreement. If the negotiators wanted to make Article XX applicable to the SCM Agreement, they argue, they could have simply followed the approach they pursued in the TRIMs Agreement (Article 3) and SPS Agreement (Preamble). However, no clear indication exists in the negotiating history as to the intention of the negotiators to make Article 8 the only avenue of justification for subsidies with legitimate policy objective.¹⁰⁴ In any case, Article 8 has expired more than two decades ago. Its expiry has eliminated any ‘double justification’ concerns. Applying Article XX to the SCM Agreement in such a way avoids the need for legal reform (and consensus). None of the respondents in the renewable energy subsidy disputes has tested this argument but the findings in *US – Origin Marking (Hong Kong, China)* will provide a good indication of the direction of travel for the future.

⁹⁸See B.J. Condon and T. Sinha (2013) *The Role of Climate Change in Global Economic Governance*. Oxford University Press (arguing ‘It would be odd if GATT Article XX could be applied to GATT Articles VI and XVI, but not to the SCM Agreement itself, absent evidence of a contrary intention’), at 63.

⁹⁹Panel Report, *United States – Definitive Safeguard Measures on Imports of Circular Welded Carbon Quality Line Pipe from Korea (US–Line Pipe)*, WT/DS/202/R, adopted 8 March 2002, para. 7.150.

¹⁰⁰Appellate Body Report, *United States – Definitive Safeguard Measures on Imports of Circular Welded Carbon Quality Line Pipe from Korea (US–Line Pipe)*, WT/DS/202/AB/R, adopted 8 March 2002, para. 199.

¹⁰¹See Appellate Body Reports, *China – Measures Related to the Exportation of Rare Earths, Tungsten and Molybdenum (China–Rare Earths)*, WT/DS431/AB/R–WT/DS433/AB/R, adopted 29 August 2014, para. 5.64.

¹⁰²See USTR (2021) ‘United States – Origin Marking Requirements (DS597): First Written Submission of the United States of America’, paras. 266–320.

¹⁰³See in particular Cosbey and Mavroidis, *supra* note 3, at 34–35.

¹⁰⁴See Rubini, *supra* note 3, at 563.

However, the fragile legitimacy of the dispute settlement system suggests that an agreement on the application of GATT Article XX to the SCM Agreement provides better certainty. The obstacle to such an agreement once again is finding the illusive consensus. Some Members may insist on extending the application of GATT Article XX to all WTO Agreements on trade in goods and this might create unnecessary division among the membership. However, there is no logical reason not to apply Article XX to any other WTO Agreement on trade in goods that does not have its own exception. It is incoherent to allow WTO Members justify extremely trade distortive measures such as import bans and quotas under GATT Article XX but not relatively less trade distortive measures such as standards and subsidies. To be sure, GATT Article XX will not shield all forms of renewable energy support measures. Discriminatory renewable energy support measures (e.g. FITs tied to LCRs), in particular, will struggle to meet the unjustifiable discrimination requirement of the chapeau.¹⁰⁵ However, extending the application of GATT Article XX to the SCM Agreement will help alleviate the above-mentioned incoherence in the legal framework and afford much-needed legal shelter for non-discriminatory renewable energy support measures. It will also help the SCM Agreement regain the balance it has lost with the expiry of Article 8 in 1999.

The final option is the resurrection of Article 8 of the SCM Agreement from the dead.¹⁰⁶ This option will help the SCM Agreement regain its carefully negotiated balance. It also entails no alteration to the other provisions of the SCM Agreement. This option however faces two fundamental limitations. First, the reasons that prevented its extension back in 1999 remain intact, if not enhanced. The developed-developing country divide has only become bigger over the last two decades and developing countries may not agree to the resurrection of Article 8 without changes to its terms. This will entail further protracted negotiations that will take years. Second, the resurrection of Article 8 does not provide sufficient protection for renewable energy support measures. Article 8 offers exemption for R&D, regional development and environmental support measures. However, all these three exemptions were qualified with a long list of conditions that limit their use. The environmental exemption in particular is subject to rigorous criteria contained in Article 8.2(c). First, the exemption applies only to subsidies that 'promote adaptation of existing facilities to new environmental requirements imposed by law and/or regulations which result in greater constraints and financial burden on firms'. These are subsidies governments provide to help private firms upgrade their existing facilities to meet new mandatory environmental standards. Absent such mandatory standards, subsidies that promote the uptake of renewable energy would not qualify for the environmental exemption. Second, even when such mandatory standards exist, only subsidies to existing facilities may qualify for non-actionability.¹⁰⁷ Subsidies to newly established facilities do not qualify for non-actionability irrespective of whether they help the facilities meet their environmental requirements. Third, subsidies to existing facilities must also meet several other conditions (including being less than 20% of the cost of adaptation) to qualify as non-actionable subsidies under Article 8.2(c).¹⁰⁸ These conditions reveal the narrow scope of Article 8.2(c) and the limited use of its mere reactivation for renewable energy support measures.

The above three options for minimal legal reform differ in their feasibility and ability to fill the green policy space deficit in multilateral energy subsidy governance, but none of them is possible without the political will and determination of the entire membership. Such will and determination has proven extremely illusive over the last two decades in the multilateral trading system, but one can only hope that the concomitant changes in leadership in Washington and Geneva may usher a new era of multilateral cooperation and trade negotiations.

¹⁰⁵See Espa and Marín Durán, *supra* note 3, at 646.

¹⁰⁶See Bigdeli, *supra* note 63.

¹⁰⁷SCM Agreement, fn. 33.

¹⁰⁸Art 8.2.(c)(i–v), *ibid.*