Disciplining Clean Energy Subsidies to Speed the Transition to a Low-Carbon World

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The purpose of multilateral disciplines on subsidies is to avoid trade distortions, in order to increase production efficiencies through competition. However, this objective may be defeated due to defects in the structure of the WTO Agreement on Subsidies and Countervailing Measures and the resulting interpretations of WTO tribunals in cases involving clean energy subsidies. These defects, together with inefficient design of energy markets, could slow the transition to clean energy sources. However, the necessary reforms to the multilateral subsidies regime and energy markets are unlikely to be implemented any time soon, in the absence of a successful formula for multilateral negotiations. In this environment, the private sector will have to take the lead in making the transition to clean energy sources, in order to mitigate the disastrous effects of climate change to the extent that this goal remains attainable.

1 INTRODUCTION

It is tempting to view trade and climate change policy goals as irreconcilable when it comes to clean energy subsidies. Some argue that trade disputes over 'green industrial policy' require countries to choose between free trade principles and environmental protection.[1] However, this argument assumes that clean energy technologies require government intervention in order to compete with fossil fuels. This ignores the efficiency gains that trade and international competition can contribute to make clean energy competitive with fossil fuels, particularly once governments stop subsidizing fossil fuel consumption.[2] While it is beyond the

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1 Mark Wu & James Salzman, *The Next Generation of Trade and Environment Conflicts: The Rise of Green Industrial Policy*, 108 Nw. U. L. Rev. 401, 416 (2014).

2 Regarding the treatment of fossil fuel subsidies in trade law, *see* Henok Birhanu Asmelash, *Energy Subsidies and WTO Dispute Settlement: Why Only Renewable Energy Subsidies Are Challenged*, 18(2) J. Intl. Econ. L. 261 (2015); Sherzod Shadikhodjaev, *Russia and Energy Issues under the WTO System*, 50 J.W.T. 705 (2016). Regarding fossil fuel subsidy reforms, *see* Jörg Husar & Florian Kitt, *Fossil Fuel Subsidy Reform in Mexico and Indonesia* (International Energy Agency 2016), https://www.iea.org/

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scope of this article to delve into an economic analysis of energy markets, it is worth noting that those markets do not work effectively and their mix of market forces and government intervention are in a constant state of flux, with respect to both clean energy sources and fossil fuels.[3]

Technological change has brought clean energy sources into the mainstream. Foot-dragging by many governments has prompted the private sector to address climate change and speed up the transition to clean energy. On the supply side, the cost of unsubsidized photovoltaic (PV) energy generation has fallen below the cost of fossil fuel energy generation in some markets. On the demand side, a group of US companies, including Walmart, General Motors, Google, Facebook and Microsoft, has created the Renewable Energy Buyers Alliance, which plans to use its purchasing power and capacity to enter long-term contracts to develop 60 GW of renewable energy by 2025. The demand for clean energy has prompted some US utilities to allow big private sector customers to contract to purchase of renewables-generated power at the standard retail rate over a three to fifteen-year term.[4] Such initiatives could have a significant impact on greenhouse gas emissions, since building operations and industry account for 66% of all energy consumption in the United States.[5] In 2015, the global PV market grew by 50 GW and total capacity reached at least 227 GW globally, producing more than 1.3% of the electricity demand in the world. PV can now compete with most fossil and nuclear sources of energy and contribute significantly to decarbonizing the electricity mix, sooner than expected and at a reasonable cost.[6] These developments indicate that it will be possible to transition to clean energy sources more quickly than previously thought.

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publications/freepublications/publication/PartnerCountrySeriesFossil_Fuel_Subsidy_Reform_Mexico_Indonesia_2016_WEB.pdf; International Energy Agency, *World Energy Outlook 2016* (International Energy Agency 2016), https://www.iea.org/media/publications/weo/WEO2016Chapter1.pdf (accessed 22 Jan. 2017) (noting a drop in fossil fuel subsidies from 500 to 325 million USD from 2014 to 2015); Bradly J. Condon & Tapen Sinha, *The Role of Climate Change in Global Economic Governance* Ch. 8 (Oxford University Press 2013).

3 For a brief discussion, *see* The Economist, *Clean Energy's Dirty Secret: Wind and Solar Power Are Disrupting Electricity Systems* (25 Feb. 2017), http://www.economist.com/news/leaders/21717371-thats-no-reason-governments-stop-supporting-them-wind-and-solar-power-are-disrupting?cid1=cust/ednew/n/bl/n/20170223n/owned/n/n/nwl/n/n/E/8947035/n (accessed 25 Feb. 2017) and International Energy Agency, *supra* n. 2.

4 Krysti Shallenberger, *Major US Companies Launch Renewable Energy Buyers Alliance* (13 May 2016), http://www.utilitydive.com/news/major-us-companies-launch-renewable-energy-buyers-alliance/419184/ (accessed 12 June 2016).

5 Architecture 2030, *U.S. Energy Consumption by Sector* (2030, Inc. 2013),http://architecture2030.org/wp-content/uploads/2010/03/us_energy_consumption_by_sector_20.png. (accessed 12 Jan. 2017).

6 International Energy Agency, *Snapshot of Global Photovoltaic Markets 2015* (International Energy Agency 2015), http://www.iea-pvps.org/fileadmin/dam/public/report/PICS/IEA-PVPS_-_A__Snapshot_of_Global_PV_-_1992-2015_-_Final_2_02.pdf. (accessed 12 Jan. 2017).

As the cost of clean energy technologies continues to decline (and the technologies improve), clean energy subsidies and import restrictions may be motivated more by competitive concerns or by rent-seeking behaviour than by environmental goals, as governments try to position their industries in the global market and vested interests seek to delay the transition from fossil fuels to clean energy.

The WTO Agreement on Subsidies and Countervailing Measures (SCM Agreement) could be useful to address market distortions, because it restricts the use of subsidies. [7] These treaty obligations can encourage greater competition in the production of clean energy, resulting in greater economic efficiency and a more rapid transition from fossil fuels. The SCM Agreement needs to be interpreted to facilitate the transition to clean energy and to combat regulatory capture by vested interests in the fossil fuel industry.

The argument presented in this article appears to contradict some recent literature that argues in favour of greater regulatory autonomy in trade and investment agreements in order to facilitate public interest regulation.[8] However, when it produces trade distortions that hamper competition, 'green industrial policy' may not qualify as public interest regulation. Regulatory autonomy and public interest are not synonymous. If they were, there would be no need for trade agreements to restrain regulatory autonomy in the first place. Regulatory autonomy needs to be constrained with respect to clean energy subsidies, because the market distortions reduce global public welfare by increasing the cost and reducing the competitiveness of clean energy technology.[9] However, this may present a challenge in an environment in which parties to trade and investment agreements are under pressure to be seen to preserve regulatory space.[10] Environmental issues can be a flash point in this regard.

The shoddy structure of the SCM Agreement, the poor judgment of WTO tribunals, the consensus blocking squabbling of WTO negotiations, and the mixed signals of energy markets have combined to create a perfect storm for the transition

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7 GATT Secretariat, *The Results of the Uruguay Round of Multilateral Trade Negotiations, the Legal Texts* 231 (Geneva 1994).

8 *See* e.g. Caroline Henckels, *Protecting Regulatory Autonomy Through Greater Precision in Investment Treaties: The TPP, CETA, and TTIP*, 19 J. Intl. Econ. L. 27 (2016); Bradly J. Condon, *Treaty Structure and Public Interest Regulation in International Economic Law*, 17 J. Intl. Econ. L. 333 (2014).

9 *See* Gregory Shaffer, Robert Wolfe, & Vincent Le, *Can Informal Law Discipline Subsidies?*, 18 J. Intl. Econ. L. 711 (2015) (Noting that some subsidies, such as for fossil fuels, adversely affect global public goods, such as a stable climate). *Also see* Gary Clyde Hufbauer and Euijin Jung, *Why Has Trade Stopped Growing? Not Much Liberalization and Lots of Micro-Protection* (23 Mar. 2016), https://piie.com/blogs/trade-investment-policy-watch/why-has-trade-stopped-growing-not-much-liberalization-and-lots (accessed 2 Feb. 2017) (attributing trade and investment stagnation to the cumulative impact of micro-protectionist measures, including local content requirements and trade distorting subsidies).

10 Armand de Mestral, *When Does the Exception Become the Rule? Conserving Regulatory Space Under CETA*, 18 J. Intl. Econ. L. 641 (2015).

to clean energy. Part 2 of this article sets out the structural defects of the SCM Agreement. Part 3 shows how WTO tribunals have converted the definition of 'subsidy' into a scope of application provision for the SCM Agreement. Part 4 explains why neither the poor structure nor the ill-advised interpretations can be remedied by applying GATT Article XX exceptions to the SCM Agreement, in the absence of a successful multilateral negotiation process. The article concludes that both the international trade regime and energy markets require reforms in order to hasten the transition to clean energy sources and slow the disastrous transformation of climate change.

2 THE STRUCTURAL DEFECTS OF THE SCM AGREEMENT

The absence of environmental exceptions complicates the effective application of the SCM Agreement to discipline unjustifiable clean energy subsidies. The structure of a treaty – the manner in which its provisions limit the general scope of the treaty's application, limit the scope of positive obligations, establish positive obligations, or establish general or specific exceptions to positive obligations – has important implications for the allocation of the burden of proof between the complainant and the respondent and, subsequently, for regulatory autonomy. Particularly in cases that involve complex factual or scientific issues, the allocation of the burden of proof can play a pivotal role, since unclear or insufficient evidence can lead to a ruling against the party who bears the burden of proof. In the case of protectionist and rent-seeking measures related to clean energy technologies, it may prove counter-productive to allocate the burden of proof in a way that enhances regulatory autonomy, since this could make such measures more difficult to challenge.

Based on treaty structure, we can categorize the allocation of the burden of proof according to five types of argument. The complainant bears the burden of proving: (1) the treaty applies to a measure (general scope of application); (2) a specific obligation applies to a measure (scope of obligation); and (3) the measure violates the applicable obligation. The respondent bears the burden of proving: (4) a specific exception applies to a measure (scope of exception) and (5) the requirements of the exception have been met.[11] The approach that a tribunal takes in a given case will be dictated by the facts of the case and the structure of the particular treaty. Treaty negotiators and drafters need to keep this in mind when they decide whether to limit the scope of a treaty in general scope provisions, the language of obligations, specific exceptions to obligations or general exceptions. In treaties that lack general exceptions, such as the SCM Agreement, limiting the scope of

[11] Condon, *supra* n. 8.

application of the treaty or its specific obligations preserves regulatory autonomy to a greater degree, because this allocates the burden of proof to the complainants and makes it easier for measures to escape scrutiny.

The political economy of climate change regulation means that it will likely involve measures that combine the pursuit of the public interest with elements that serve private interests, rather than purely public interest measures.[12] Energy matters can be politicized as matters of national security, which can serve as an argument in favour of subsidies for domestic clean energy producers. Clean energy subsidies can also be promoted as measures to combat climate change, to protect the environment, and to protect public health from air pollution. These measures could gain the support of both domestic clean energy suppliers and the fossil fuel industry; the former would see this as a rent-seeking strategy and the latter could see this as a strategy for increasing the cost of solar energy, which would make fossil fuels more price competitive and delay the transition to clean energy. Environmentalists would support subsidies for domestic clean energy producers on environmental grounds, on the assumption that this would make clean energy cheaper. Making clean energy subsidies contingent on the use of domestic inputs could gain the support of local suppliers or trade unions, depending on whether the domestic inputs would have to be supplied by multinational companies setting up local production facilities or whether domestic suppliers are already established. These mixed-motive measures will raise issues regarding the primary purpose of clean energy measures and the extent to which they serve the public interest, on the one hand, and the extent to which they serve private interests, on the other. Since regulatory capture has the potential to distort climate change regulation to serve private interests, these political considerations raise important issues.[13]

The SCM Agreement lacks a general exception and does not incorporate any language from GATT Article XX. The structure of the SCM Agreement, in which there are no environmental exceptions, requires tribunals to exclude clean energy subsidies from the scope of application if they wish to avoid multilateral disciplines on the use of prohibited subsidies and actionable subsidies. In the SCM Agreement, arguments regarding the scope of application of the agreement as a whole take on greater importance than in the GATT, since the SCM Agreement lacks the general exceptions found in GATT Article XX.

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[12] For an analysis of the political economy of trade and environment in China, the United States and the European Union, *see* Aluisio de Lima-Campos, *Políticas de Comercio y Medio Ambiente: En Busca de un Alineamiento*, 2(3) Rev. Der. Econ. Intl. 35 (2012).

[13] Regarding the treatment of such political considerations in international trade law, *see* Emily Reid, *Balancing Human Rights, Environmental Protection and International Trade, Lessons from the EU Experience* (Hart Publishing 2015); Henrik Andersen, *Protection of Non-Trade Values in WTO Appellate Body Jurisprudence: Exceptions, Economic Arguments, and Eluding Questions*, 18 J. Intl. Econ. L. 383 (2015).

The complainant bears the burden of proving that a measure falls within the scope of a treaty. However, such general scope provisions are not always clearly indicated as such. For example, the scope of the SCM Agreement is limited by the definition of 'subsidy' in Article 1.1. In *Canada – Renewable Energy* and *Canada – Feed-in Tariff Program*, both the Panel and the Appellate Body found that the complainants did not meet their burden of proving that the SCM Agreement applied to the measure, because they failed to prove the existence of a 'benefit' under Article 1.1(b).[14] Thus, there was no need to examine whether the measure was inconsistent with the prohibition of import substitution subsidies under Article 3.1(b) of the SCM Agreement.

When the text of a specific obligation provides little room for limiting its scope of application, and the treaty contains no general exception in which to address public interest regulation, tribunals should address public interest regulation in the general scope provisions. In the SCM Agreement, the text of Article 3 regarding prohibited subsidies obligation provides little room for limiting its scope of application and there are no general exceptions that serve this purpose.[15] Thus, the only means to preserve regulatory autonomy is to limit the general scope of application of the SCM Agreement as a whole, as the Panel and the Appellate Body did in *Canada – Renewable Energy* and *Canada – Feed-in Tariff Program*.[16] However, the result of this approach to the deficient structure of the SCM Agreement is that it is now difficult to apply multilateral disciplines to trade distorting clean energy subsidies. As Cosbey and Mavroidis point out, the Appellate Body has created a new distinction 'between measures that create a new market, and measures that support active players in existing markets'. As a result, the Appellate Body ruling might not prove to be an insurmountable obstacle to disciplining clean energy subsidies once clean energy technologies and markets mature sufficiently.[17]

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[14] WTO Appellate Body Reports, *Canada – Certain Measures Affecting the Renewable Energy Generation Sector (Canada – Renewable Energy)*, WT/DS412/AB/R, and *Canada – Measures Relating to the Feed-in Tariff Program (Canada – Feed-in Tariff Program)*, WT/DS426/AB/R, adopted 24 May 2013, para. 5.219; WTO Panel Reports, *Canada – Certain Measures Affecting the Renewable Energy Generation Sector (Canada – Renewable Energy)*, WT/DS412/R, and *Canada – Measures Relating to the Feed-in Tariff Program (Canada – Feed-in Tariff Program)*, WT/DS426/R, adopted 24 May 2013, paras 7.309–7.319.

[15] *See* argument, *infra*, that GATT Art. XX is not applicable to the SCM Agreement.

[16] Appellate Body Reports, *Canada – Renewable Energy* and *Canada – Feed-in Tariff Program*, *supra* n. 14, para. 5.219; Panel Reports, *Canada – Renewable Energy* and *Canada – Feed-in Tariff Program*, *supra* n. 14, paras 7.309–7.319.

[17] Aaron Cosbey & Petros C. Mavroidis, *A Turquoise Mess: Green Subsidies, Blue Industrial Policy and Renewable Energy: the Case for Redrafting the Subsidies Agreement of the WTO*, Robert Schuman Centre for Advanced Studies, EUI Working Paper RSCAS 2014/17, 11–13 (European University Institute 2014).

3 DEFINITION OF SUBSIDY AS A SCOPE PROVISION

The SCM Agreement only applies to a measure if it constitutes a subsidy within the meaning of SCM Agreement Article 1.1. A 'financial contribution' and a 'benefit' are two separate legal elements in Article 1.1, which together determine whether a subsidy exists.[18]

The definition of 'financial contribution' is quite broad, and is the easier part of the definition of subsidy to prove (although it is quite detailed and technical). According to the Appellate Body, 'the mere fact that revenues are not "due" from a fiscal perspective does not determine that the revenues are or are not "otherwise due" within the meaning of Article 1.1(a)(1)(ii) of the SCM Agreement'.[19] A 'financial contribution' does not arise simply because a government does not raise revenue which it could have raised. The term 'otherwise due' implies a comparison with a 'defined normative benchmark', as established by the tax rules applied by the Member in question.[20] The determination of 'whether revenue foregone is otherwise due must allow a comparison of the fiscal treatment of comparable income, in the hands of taxpayers in similar situations'.[21]

If a country taxes products according to their carbon footprint, the most probable result is that different products will be subject to different tax rates. One example is where fossil fuels are subject to a sales tax that is not applied to other products, such as clean energy production, as is already the case in some jurisdictions. For example, the Canadian province of British Columbia introduced a carbon tax on fossil fuels in 2008. A more elaborate scheme might apply different levels of sales taxes to different categories of products based on different ranges of carbon footprints, taking into account the production of carbon emissions during the lifecycle of the products. If such schemes are designed so that domestic products are subject to a lower tax than imported products, then the lower tax rate might constitute revenue foregone that is otherwise due. If both the domestic and imported products are substitutable inputs for domestic production (as is the case with fuels) and the foregone revenue confers a benefit, then there could be a violation of SCM Agreement Article 3.1(b). This could be the case if countries diverge in their regulation and reduction of carbon emissions, so that some countries engage in less carbon-intensive production than others. Moreover, such divergences in the carbon intensity of production would probably lead to

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[18] Appellate Body Report, *Brazil – Export Financing Programme for Aircraft (Brazil – Aircraft),* WT/DS46/AB/R, adopted 20 Aug. 1999, para. 156.

[19] Appellate Body Report, *United States – Tax Treatment for 'Foreign Sales Corporations' (Article 21.5 – EC) US – FSC (Article 21.5 – EC)*, WT/DS108/AB/RW, adopted 29 Jan. 2002, para. 88.

[20] Appellate Body Report, *United States – Tax Treatment for 'Foreign Sales Corporations'* (*US – FSC*), WT/DS108/AB/R, adopted 20 Mar. 2000, para. 90.

[21] *US – FSC (Article 21.5 – EC)* (AB), *supra* n. 19, para. 98.

differential treatment of imports, thereby raising issues regarding most-favoured-nation treatment. The reference in footnote 1 to 'the exemption of an exported product from duties or taxes borne by the like product' could indicate that Article 1.1(a)(1)(ii) is intended to apply to other cases where like products receive different consumption tax treatment. In this regard, the Appellate Body has stated: 'The tax measures identified in footnote 1 as not constituting a "subsidy" involve the exemption of exported products from product-based consumption taxes.'[22] However, revenue is not otherwise due just because certain revenue is not taxed (or not taxed at as a high a level as it could be); a WTO Member is 'free *not* to tax any particular categories of revenues'.[23] Thus, it is not clear in which circumstances differential taxation of products based on their carbon footprints might constitute a 'financial contribution by a government' within the meaning of the SCM Agreement. For example, if tax is 1 USD/mg of CO_2 released in atmosphere and domestic goods happen to pollute less than imported ones but are all subjected to same tax rate, the effect would be to discriminate against the imported product with respect to the total amount of tax that is paid. This would be inconsistent with GATT Article III:2, first sentence, if the difference in CO_2 emissions is due to processing and production methods that do not affect the competitive relationship between the products in the market. However, it is not clear whether this would constitute a 'financial contribution by a government' within the meaning of the SCM Agreement.

In *Canada – Aircraft*, the Appellate Body interpreted of the term 'benefit' under Article 1.1(b) as follows: 'a financial contribution will only confer a "benefit", i.e. an advantage, if it is provided on terms that are more advantageous than those that would have been available to the recipient on the market'.[24] The assessment of benefit must examine the terms and conditions of the challenged transaction at the time it is made and compare them to the terms and conditions that would have been offered in the market at that time.[25]

In *Canada – Renewable Energy* and *Canada – Feed-in Tariff Program*, a key issue was which market provides the most appropriate benchmark in determining the existence and magnitude of a benefit for solar and wind power producers.[26] In the absence of Ontario's feed-in-tariff (FIT) program, a competitive wholesale market

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22 *US – FSC* (AB), *supra* n. 20, para. 93.

23 *Ibid.*, at para. 90.

24 WTO Appellate Body Report, *Canada – Measures Affecting the Export of Civilian Aircraft* (*Canada – Aircraft*), WT/DS70/AB/R, adopted 20 Aug. 1999, para. 149.

25 Appellate Body Report, *European Communities – Measures Affecting Trade in Large Civil Aircraft (EC and Certain Member States – Large Civil Aircraft)*, WT/DS316/AB/R, adopted 1 June 2011, para. 838; Appellate Body Report, *United States – Large Civil Aircraft (2nd Complaint)*, WT/DS353/AB/R, adopted 23 Mar. 2012, para. 636.

26 Panel Reports, *Canada – Renewable Energy* and *Canada – Feed-in Tariff Program*, *supra* n. 14, para. 7.270.

for electricity in Ontario could not support commercially viable operations of solar and wind power producers.[27] The Panel rejected the complainants' argument that the analysis of benefit should compare the terms and conditions of participation in the FIT Program with those that would be available to generators participating in a wholesale electricity market where there is effective competition. The majority held that none of the alternatives that had been advanced by the complainants or Canada could be used as appropriate benchmarks against which to measure whether the FIT Program conferred a benefit within the meaning of Article 1.1(b) of the SCM Agreement.[28]

The Appellate Body held that the Panel had erred 'in not conducting the benefit analysis on the basis of a market that is shaped by the government's definition of the energy supply-mix, and of a benchmark located in that market reflecting competitive prices for wind power and solar PV generation'.[29] However, there were insufficient factual findings for the Appellate Body to complete the analysis, so it was unable to determine whether the measure conferred a benefit. Thus, on this issue, the Appellate Body reached the same conclusion as the Panel majority, but for different reasons. The Appellate Body decision indicates that the benefit analysis can exclude a subsidy from the application of the SCM Agreement if no benefit is conferred to one solar or wind power producer compared to others in the market. That is, the government can use subsidies to determine the mix of energy sources without violating the SCM Agreement.

The absence of a general environmental exception in the SCM Agreement makes the role of the benefit analysis important in excluding clean energy incentives from the scope of application of the SCM Agreement based on the complainant's failure to meet the burden of proof. While the benefit analysis did not explicitly safeguard the right of governments to regulate in the public interest with respect to clean energy incentives, this was the effect addressing the measure in a general scope provision in which the complainants were unable to meet their burden of proof. However, if clean energy incentives have the effect of distorting trade and delaying the transition to clean energy, making it difficult for complainants to meet their burden of proof in the general scope provision is not a good outcome, if the goal is to mitigate climate change. Tribunals need to be aware of this when addressing cases involving clean energy subsidies.

One can argue that the creation of a clean energy market required subsidization in the first place since clean energy was at the time more expensive than fossil fuel.[30] This

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27 *Ibid.*, at paras 7.276–7.277.

28 *Ibid.*, at paras 7.309–7.319.

29 Appellate Body Reports, *Canada – Renewable Energy* and *Canada – Feed-in Tariff Program*, *supra* n. 14, at para. 5.219. *Also see* Rolf H. Weber & Rika Koch, *International Trade Law Challenges by Subsidies for Renewable Energy*, 49 J.W.T. 757 (2015).

30 *See* Cosbey & Mavroidis, *supra* n. 17, and Luca Rubini, *Ain't Wastin' Time No More: Subsidies for Renewable Energy, The SCM Agreement, Policy Space, and Law Reform*, 15 J. Intl. Econ. L. 525 (2012).

article does not take issue with this view. Rather, the argument in this article is that advances in clean energy technologies will require disciplines on clean energy subsidies when clean energy technologies no longer require subsidies in order to compete with fossil fuels, in order to avoid counter-productive market distortions.

The Appellate Body's restrictive interpretation of the scope provisions of the SCM Agreement in *Canada – Renewable Energy* may make it more difficult to discipline clean energy subsidies as prohibited or actionable subsidies. It is instructive that the United States did not pursue claims under the SCM Agreement in *India – Certain Measures Relating to Solar Cells and Solar Modules* (which it had invoked in its request for consultations in this dispute), relying instead on TRIMS and GATT Article III:4.[31] However, in *United States – Certain Measures Relating to the Renewable Energy Sector*, India did allege violations of Articles 3.1(b) and 3.2 of the SCM Agreement because the measures constitute a subsidy within the meaning of Article 1.1 of the SCM Agreement that is contingent upon the use of domestic over imported goods.[32]

The benefit issue also arises with respect to unilateral action against subsidies, in which case a distorted market for in-country private prices may justify the use of alternative benchmarks in countervailing duty investigations. In this situation, the benefit analysis does not serve as a means of limiting the scope of application of the SCM Agreement, unlike the situation with multilateral disciplines on subsidies. Nevertheless, where green industrial policy causes market distortions in the production of clean energy technology, it can facilitate the use of protectionist countervailing duties that distort these markets even further, in a manner that is counter-productive to the transition to clean energy sources.

In *US – Countervailing Measures (China)*, the Appellate Body found that the US investigating authority acted inconsistently with Article 14(d) and Article 1.1(b) of the SCM Agreement with respect to solar panels, because it equated the concept of government predominance with the concept of price distortion.[33] Article 14(d) requires an analysis of the market in the country of provision to determine whether particular in-country prices can be relied upon in arriving at a proper benchmark for the calculation of countervailing duties.[34] It is not appropriate to rely on such prices when they are not market determined.[35] An investigating authority may

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

[32] *United States – Certain Measures Relating to the Renewable Energy Sector*, Request for the establishment of a panel by India, WT/DS510/2, 24 Jan. 2017.

[33] Appellate Body Report, *United States — Countervailing Duty Measures on Certain Products from China (US – Countervailing Measures (China))*, adopted 16 Jan. 2015, paras 4.95–4.96.

[34] *Ibid*., at para. 4.49; Appellate Body Report, *United States — Countervailing Measures on Certain Hot-Rolled Carbon Steel Flat Products from India (US – Carbon Steel (India))*, adopted 19 Dec. 2014, para. 4.154.

[35] *US – Countervailing Measures (China)*(AB), *supra* n. 33, para. 4.50; *US – Carbon Steel (India)* (AB), *supra* n. 34, para. 4.155.

reject in-country prices if there is price distortion in the market. [36] An investigating authority must establish price distortion on a case-by-case basis and cannot refuse to consider evidence relating to factors other than government market share.[37] The investigating authority must support its determination of market distortion with evidence and must provide a reasoned and adequate explanation of the basis for its conclusions. The burden of proof is on the complainant to show that the investigating authority has acted inconsistently with Article 14(d), for example because the evidence does not support a determination of market distortion. Where there is evidence that government intervention distorts the market, the investigating authority may use an alternative benchmark for the benefit analysis under Article 14(d), provided that the investigating authority provides a reasoned and adequate explanation of the basis for its conclusions. This means that the investigating authority will have greater flexibility in establishing the appropriate benchmark, which increases the risk of protectionist countervailing duties on imports of clean energy technologies. This, in turn, increases the risk of trade distortions that would have the effect of reducing competition and efficiencies, increasing the cost of clean energy technologies, and delaying the transition to clean energy sources. However, this result can be avoided by finding that the investigating authority has not provided a reasoned and adequate explanation of the basis for its conclusions regarding the appropriate benchmark.

4 GATT ARTICLE XX DOES NOT APPLY TO THE SCM AGREEMENT

If there were an adequate environmental exception in the SCM Agreement, there would be no need to exclude clean energy subsidies from the scope of the SCM Agreement via the analysis of benefit. The exception for environmental subsidies in Article 8 of the SCM Agreement has expired.[38] It is unlikely that clean energy subsidies that are inconsistent with the SCM Agreement could be justified under GATT Article XX. Marceau and Trachtman have suggested that it would require a 'heroic approach to interpretation' to extend the application of GATT Article XX to justify a violation under another agreement of Annex 1A.[39] However, in *US – Shrimp (Thailand)* and *US – Customs Bond Directive*, the Appellate Body

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[36] *US – Countervailing Measures (China)* (AB), *supra* n. 33, at para. 4.51; Appellate Body Report, *United States — Definitive Anti-Dumping and Countervailing Duties on Certain Products from China (US – Anti-Dumping and Countervailing Duties (China))*, adopted 25 Mar. 2011, para. 446.

[37] *US – Countervailing Measures (China)* (AB), *supra* n. 33, at para. 4.59.

[38] For the history of Art. 8, *see* Cosbey & Mavroidis, *supra* n. 17, at 21–23.

[39] Gabrielle Marceau & Joel Trachtman, *The Technical Barriers to Trade Agreement, the Sanitary and Phytosanitary Measures Agreement, and the General Agreement on Tariffs and Trade*, 36 J.W.T. 811, 874 (2002).

declined to express a view on whether a defence under GATT Article XX(d) was available to justify a measure found to constitute a 'specific action against dumping' under Article 18.1 of the Antidumping Agreement.[40] Article 18.1 of the Anti-Dumping Agreement provides that '[n]o specific action against dumping of exports from another Member can be taken except in accordance with the provisions of the GATT 1994, as interpreted by this Agreement'. Having found that the enhanced continuous bond requirement constituted 'specific action against dumping' and that it was not a 'reasonable security' under the Ad Note to Article VI of the GATT 1994, and thus was not 'in accordance with the provisions of the GATT 1994, as interpreted by the [Anti-Dumping] Agreement', the Panel in that case examined the United States' defence under Article XX(d) of the GATT 1994, but found that the measure could not be justified as necessary.

The chapeau of GATT Article XX indicates that the general exceptions apply to 'this Agreement'. This appears to exclude the application of Article XX beyond the provisions of the GATT itself. However, the provisions of the GATT serve as the starting point for the majority of the multilateral agreements on trade in goods.

In *China – Publications and Audiovisual Products*, the Appellate Body concluded that China could invoke GATT Article XX as a defence against a violation of section 5.1 of its Protocol of Accession.[41] In *China – Raw Materials*, both the Panel and the Appellate Body concluded that China could not invoke GATT Article XX as a defence against a violation of section 11.3 of its Protocol of Accession.[42] After observing that the WTO Agreement contains no general exception, the Panel concluded that the reference in the chapeau of Article XX to 'this Agreement' indicates that its general exceptions apply only to the GATT, and not to other WTO Agreements. The Panel further noted that WTO Members had incorporated Article XX by reference, in the TRIMS Agreement, and that other WTO Agreements contained their own general exceptions, such as GATS Article XIV.[43] However, the Appellate Body limited its analysis to why GATT Article XX could not apply to section 11.3 of China's Protocol of Accession. The Appellate Body considered that Article XX could not be invoked to justify the violation of an obligation that was not regulated by the GATT. The obligation emanated

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[40] Appellate Body Report, *United States – Shrimp (Thailand)* and *United States – Customs Bond Directive*, WT/DS343/AB/R, WT/DS345/AB/R, adopted 1 Aug. 2008, paras 310, 319.

[41] Appellate Body Report, *China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products (China – Publications and Audiovisual Products)*, WT/DS363/AB/R, adopted 19 Jan. 2010.

[42] Appellate Body Report, *China – Measures Related to the Exportation of Various Raw Materials (China – Raw Materials)*, WT/DS394/AB/R, WT/DS395/AB/R, WT/DS398/AB/R, adopted 22 Feb. 2012. *Also see* Wenwei Guan, *How General Should the GATT General Exceptions Be?: A Critique of the 'Common Intention' Approach of Treaty Interpretation*, 48 J.W.T. 219 (2014).

[43] Panel Report, *China – Measures Related to the Exportation of Various Raw Materials (China – Raw Materials)*, WT/DS394/R, WT/DS395/R, WT/DS398/R, adopted 22 Feb. 2012, paras 7.150–7.154.

exclusively from the Protocol. It also observed, as did the Panel, that section 11.3 made no reference to Article XX, even though it referred expressly to GATT Article VIII. Unlike sections 11.1 and 11.2, section 11.3 contained no obligation to ensure conformity with GATT. Moreover, unlike section 5.1 of the Protocol in *China – Publications and Audiovisual Products*, section 11.3 made no reference to the right of China to regulate trade in a manner compatible with the WTO Agreement.[44] The Appellate Body's reasoning in these cases indicates that the applicability of the general exceptions of GATT Article XX to other WTO Agreements might depend on the specific provision and its context.

In the case of subsidies, GATT Articles VI (countervailing duties) and XVI (subsidies in general) apply together with the provisions of the SCM Agreement. Indeed, the principal object and purpose of the SCM Agreement is to augment and improve GATT disciplines regarding the use of subsidies and countervailing measures.[45] The name of the SCM Agreement, in contrast to that of the Antidumping Agreement (Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994), does not indicate that it serves merely to interpret and apply GATT provisions. 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 (which the expired SCM Agreement Article 8 might provide). This assumes that GATT Article XX could be applied to GATT Articles VI and XVI. However, it is not at all clear how this would work in the case of countervailing measures. Would environmental subsidies that meet the requirements of GATT Article XX be non-actionable and thus not subject to countervailing duties under Part V or multilateral action under Part III of the SCM Agreement? This was the case for a limited range of environmental subsidies before the expiry of SCM Agreement Article 8.[46] Since negotiators developed specific exceptions and language to address the issue of environmental subsidies, and did not incorporate the language of Article XX or incorporate Article XX by reference, it seems unlikely that GATT Article XX could be invoked to preclude action under parts III and V. Moreover, in the case of actionable subsidies under Part III, negotiators specified that Article 5 and 6 would not apply to subsidies maintained on agricultural products as provided in

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44 *China – Raw Materials* (AB), *supra* n. 42, paras 290–303.

45 Appellate Body Report, *United States – Countervailing Duties on Certain Corrosion-Resistant Carbon Steel Flat Products from Germany*, WT/DS2133/AB/R, adopted 19 Dec. 2002, para. 73; Appellate Body Report, *United States – Final Countervailing Duty Determination with Respect to Certain Softwood Lumber from Canada*, WT/DS257/AB/R, adopted 17 Feb. 2004, para. 64; Appellate Body Report, *Brazil – Measures Affecting Desiccated Coconut* (*Brazil – Desiccated Coconut*), WT/DS22/AB/R, adopted 20 Mar. 1997, 15.

46 SCM Agreement Arts 8.1, 8.2 (c), 8.3, 10, 31.

Article 13 of the Agreement on Agriculture.[47] While Article 13 has since expired, this indicates that negotiators turned their minds to the issue of whether to exclude certain types of subsidies from the application of Part III. Similarly, in Part V the non-actionability of certain types of subsidies, including environmental subsidies, was carefully circumscribed.[48]

In addition to prohibitions on export subsidies and import substitution subsidies in Article 3 of the SCM Agreement, subsidies are subject to Part III (actionable subsidies) and Part V (countervailing measures) of the SCM Agreement. Countervailing measures can be applied to imports to counter the effect of subsidized products where the subsidy causes injury to the domestic producers of like products. Part III can be used to attack subsidies that cause adverse effects in third country markets, for example due to lost sales and price suppression. Unlike countervailing measures, there is no obligation in the SCM Agreement to quantify the precise amount of the subsidy for purposes of an adverse effects claim.[49]

Prohibited subsidies (export subsidies and subsidies contingent on the use of domestic goods) are deemed to be specific under Article 2.3. SCM Agreement. Article 32.1 provides that '[n]o specific action against a subsidy of another Member can be taken except in accordance with the provisions of GATT 1994, as interpreted by this Agreement'. SCM Agreement note 56 provides that '[t]his paragraph is not intended to preclude action under other relevant provisions of GATT 1994, where appropriate'. However, SCM Agreement Article 3.1 indicates that export subsidies and subsidies contingent on the use of domestic goods are prohibited '[e]xcept as provided in the Agreement on Agriculture'. This could be interpreted as precluding the application of any other exceptions to SCM Agreement Article 3.1, including the general exceptions of GATT Article XX, which would make it difficult for export subsidies to be found consistent with WTO law, even those designed to address competitive disadvantages from domestic carbon taxes or other climate change measures with similar effects.

However, the preamble of the Agreement on Agriculture refers to 'the need to protect the environment' and Article 14 of the Agreement on Agriculture indicates that the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement)[50] applies cumulatively to the Agreement on Agriculture. The preamble of the SPS Agreement indicates that it elaborates on

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47 SCM Agreement Arts 5, 6.9. Regarding the relationship between the SCM Agreement and the Agreement on Agriculture, *see* Lorand Bartels, *The Relationship Between the WTO Agreement on Agriculture and the SCM Agreement: An Analysis of Hierarchy Rules in the WTO Legal System*, 1 J.W.T 7 (2016).

48 SCM Agreement Arts 8, 10, fn. 35.

49 Appellate Body Report, *United States – Measures Affecting Trade in Large Civil Aircraft – Second Complaint (US – Large Civil Aircraft (2nd complaint))*, WT/DS353/AB/R, adopted 23 Mar. 2012, para. 697.

50 GATT Secretariat, *The Results of the Uruguay Round of Multilateral Trade Negotiations, the Legal Texts* 59 (Geneva 1994).

GATT rules, in particular Article XX(b). Thus, the argument could be made that the Agreement on Agriculture opens the door to the application of GATT Article XX(b). However, the Agreement on Agriculture only applies to the 'agricultural products' listed in Annex 1 of the Agreement on Agriculture.[51] Thus, even if one were to accept the foregoing argument, the application of GATT Article XX(b) to SCM Agreement Article 3.1 could be limited to measures affecting these agricultural goods. The more likely conclusion is that Article XX is not available to justify a violation of the Agreement on Agriculture. Rather, environmental subsidies that applied to agricultural products would have to comply with the commitments in the schedules of WTO Members. As with environmental subsidies for non-agricultural products, environmental subsidies for agricultural products could be non-actionable under parts III and V of the SCM Agreement, either because they are not specific or because differences in carbon footprints are relevant in the like products analysis.

A more general argument might be raised regarding the applicability of GATT Article XX to all Agreements in Annex 1A, including the SCM Agreement, based on the argument that all WTO Agreements are cumulative and apply simultaneously and that the effective interpretation principle requires that both rights (such as those in Article XX) and obligations are cumulative.[52] However, the foregoing analysis suggests that the applicability of GATT Article XX to the other agreements in Annex 1A would have to be considered one agreement at a time and one provision at a time. This approach is consistent with the view of the Appellate Body that the relationship between the GATT 1994 and the other agreements in Annex 1A must be considered on a case-by-case basis.[53] It is also consistent with *China – Raw Materials*, in which the Appellate Body found that China could not invoke Article XX as a defence under section 11.3 of its Protocol of Accession.[54] In *China – Publications*, the Appellate Body reasoned that Article XX could be invoked when the measure could be inconsistent with a GATT provision or a provision related to goods in another WTO agreement. Otherwise, a complainant could deprive a respondent of its rights under Article XX by avoiding claims under the GATT. In *China – Raw Materials*, the Appellate Body placed greater emphasis on the wording and the context of the specific provision. Taken together, these two cases suggest that, in order to invoke Article XX, a provision outside the GATT would have to contain a reference to Article XX, a right to regulate trade or other reference to the GATT. Nevertheless, where a provision contains no such reference, but incorporates language from Article XX,

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[51] Agreement on Agriculture, Art. 2.
[52] Marceau & Trachtman, *supra* n. 39, at 874–875.
[53] *Brazil – Desiccated Coconut* (AB), *supra* n. 45, at 13.
[54] *China – Raw Materials* (AB), *supra* n. 42, at paras 290–291.

it might be interpreted in a manner that is consistent with Article XX, as the Appellate Body did in *US – Clove Cigarettes* with respect to TBT Agreement Article 2.1.[55] The foregoing series of Appellate Body reports, together with the foregoing analysis of the text of the SCM Agreement, indicate that Article XX could not be invoked as a defence under the SCM Agreement in order to justify clean energy subsidies.[56]

An additional argument against applying Article XX to the SCM Agreement, specifically against applying the GATT Article XX chapeau to justify discriminatory payments of subsidies only to national firms, is that this view is inconsistent with the intent of WTO Members to allow such subsidies in the terms set out in GATT Article III:8(b).[57]

5 CONCLUSION

As the transition to clean energy progresses, clean energy subsidies will become increasingly counter-productive and have the effect of delaying that transition. WTO tribunals need to keep this in mind in their interpretation of the definition of subsidy in the SCM Agreement in order to maintain disciplines on the use of clean energy subsidies. However, broadening the scope of application of the SCM Agreement through a broader interpretation of the definition of subsidy may lead to undesirable outcomes with respect to other types of environmental subsidies. The absence of a general environmental exception, together with the inapplicability of GATT Article XX to the SCM Agreement, leaves WTO tribunals in a difficult predicament regarding how to balance trade and environment issues in WTO law. This represents an example of the need to find a solution to the breakdown of WTO Members' capacity to make progress in multilateral trade negotiations, in order to make the necessary reforms to the SCM Agreement, as well as the need to make more rapid progress on reforms to energy markets in general and fossil fuel subsidies in particular.

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55 Danielle Spiegel Feld & Stephanie Switzer, *Whither Article XX? Regulatory Autonomy Under Non-GATT Agreements After China—Raw Materials*, 38 Yale J. Intl. L. 16, 29–30 (2012); Appellate Body Report, *United States – Measures Affecting the Production and Sale of Clove Cigarettes* (*US – Clove Cigarettes)*, WT/DS406/AB/R, adopted 24 Apr. 2012, para. 182.

56 For arguments in favour of applying GATT Art. XX to the SCM Agreement, *see* Rubini, *supra* n. 30; and Robert Howse, *Do the World Trade Organization Disciplines on Domestic Subsidies Make Sense? The Case for Legalizing Some Subsidies*, in *Law and Economics of Contingent Protection in International Trade* 85–102 (Kyle W. Bagwell, George A. Bermann, & Petros C. Mavroidis eds, Cambridge University Press 2010).

57 *See* Cosbey & Mavroidis, *supra* n. 17, at 18.