

Potential WTO Implications of Carbon Pricing Mechanisms

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Carbon pricing seeks to capture the external costs of greenhouse gas emissions and helps shift the costs to those who are responsible for the emissions. This article discusses two carbon pricing policies—carbon taxes and emissions trading mechanisms—and their potential implications under the rules of the World Trade Organization. The article focuses on the border adjustment of these two policies. It first examines the WTO-consistency of applying carbon taxes on imports and of extending the emissions trading mechanism to imports. The article next considers the WTO-consistency of excluding exports from carbon taxes or emissions trading mechanisms, or of reimbursing exporters for the carbon taxes or the costs of emissions allowances. The article then reviews discussions on trade and climate change in the WTO.

Keywords : carbon pricing, carbon taxes, emissions trading mechanisms, border adjustment, Committee on Trade and Environment

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I. Introduction

Addressing climate change is a top global priority. In the 2015 Paris Agreement,¹ 191 State Parties, including the Republic of Korea (“ROK”), committed to the objective of limiting future global warming to between 1.5 and 2°C above pre-industrial levels. Countries are implementing diverse strategies to contribute to this goal. As part of these strategies, some countries have been trying to establish a price for carbon dioxide (“CO₂”) and other greenhouse gas (“GHG”) emissions. Two policy instruments that are being used to put a price on GHG emissions are carbon taxes and “cap and trade” mechanisms, which are also known as emissions trading mechanisms. This article will discuss the trade implications of carbon taxes and emissions trading mechanisms and, in particular, it will examine some of the key issues that such policies raise under the rules of the World Trade Organization (“WTO”).

WTO Members have taken different approaches to meeting their Paris Agreement commitments. Not all WTO Members agree that it is appropriate to discuss climate change policies in the WTO. However, domestic climate change policies can have an effect on the

international competitiveness of domestic producers. These policies also may have an impact on foreign producers. Climate change policies thus tend to have unavoidable trade implications. This can lead to friction between countries, but it also creates opportunities for cooperation. Either way, it seems inevitable that the WTO will have to address climate change policies in the immediate future and the subject is likely to grow in importance rather than fade away.

The article begins with an overview of carbon taxes and emissions trading mechanisms, providing a brief explanation how each policy works and the differences between them. Next, it examines the potential implications of each policy under the WTO’s rules. This is followed by a review of WTO discussions touching on carbon taxes and emissions trading mechanisms. The final section sets out brief concluding remarks.

II. What are carbon taxes and emissions trading mechanisms?

Carbon taxes and emissions trading mechanisms are two important types of mitigation measures that seek to reduce the emissions of CO₂ and other green-

¹ Adoption of the Paris Agreement, U.N. Doc. FCCC/CP/2015/L.9/Rev.1, 12 December 2015.

house gases. Both types of measures are based on the “polluter pays principle” and are ways to put a price on CO₂ and other greenhouse gases.²

Setting a price on carbon has several advantages, including:

- Shifting the burden for the damage back to those who are responsible for it, and who can reduce it.
- Providing an economic signal so that polluters can decide for themselves whether to discontinue their polluting activity, reduce emissions, or continue polluting and pay for it. The overall environmental goal therefore is achieved in the most flexible and least-cost way to society.
- Stimulating clean technology and market innovation, and fuelling new, low-carbon drivers of economic growth.³

Carbon taxes can take different forms. For example, they can take the form of a charge on the carbon content of fossil fuels or a charge on each unit of GHG emitted.⁴ Economists characterize carbon taxes as a “Pigouvian tax”, which is “a

government fee on activities that inflict external social harm not internalized by those who do these activities”.⁵ The ideal scenario pursued through a carbon tax is that the costs imposed on those who produce pollution—e.g., carbon emissions—are equivalent to the harm to others caused by that pollution.⁶ The problem, as one commentator notes, is that “[c]alculating precisely how much that cost should be is no simple feat”.⁷

Several countries have imposed carbon taxes on fossil fuels. For example, Canada enacted a country-wide tax on oil, coal and gas. The tax started at \$15 per ton of CO₂ and is supposed to increase to \$38 per ton by 2022.⁸ However, certain key industries that face strong trade competition are exempt from the tax. Instead, those industries participate in a separate program through which they will pay for excess emissions or buy carbon credits from cleaner firms.⁹ Canada’s Supreme Court recently upheld the federal government’s right to impose a carbon price across the country.¹⁰ In its ruling, the Supreme Court observed that “there

² *Carbon tax v cap-and-trade: which is better?* (2013, January 31). The Guardian. <https://www.theguardian.com/environment/2013/jan/31/carbon-tax-cap-and-trade>.

³ Pricing Carbon. World Bank Group. <https://www.worldbank.org/en/programs/pricing-carbon>.

⁴ *Ibid.*

⁵ *A Carbon Tax for the United States?* (2019, September 30). PIIE. <https://www.piie.com/blogs/realtime-economic-issues-watch/carbon-tax-united-states>.

⁶ *Ibid.*

⁷ *Ibid.*

⁸ Plumer, B., & Popovich, N. (2019, April 2). *These Countries Have Prices on Carbon. Are They Working?* The New York Times. <https://www.nytimes.com/interactive/2019/04/02/climate/pricing-carbon-emissions.html>.

⁹ *Ibid.*

was broad consensus among expert international bodies that carbon pricing is a critical measure for the reduction of [GHG] emissions”.¹¹

The World Bank reports that 33 national jurisdictions and 8 subnational jurisdictions have a carbon tax in place.¹² It estimates that these initiatives cover 3 gigatonnes of equivalent CO₂ (“GtCO₂e”), which represent 5.6% of global GHG emissions in 2020. In 2019, several members of the U.S. House of Representatives introduced a legislative proposal to impose a fee on the carbon content of fuels, including crude oil, natural gas, coal, or any other product derived from those fuels that will be used so as to emit greenhouse gases into the atmosphere. The fee would have started at \$15 in 2019 and would be increased by \$10 each year. The bill was not passed. The prospects of a carbon tax in the United States under the new, more pro-environment Administration of President Joe Biden are still unclear. During his campaign, he promised to pass legislation to establish “an enforcement mechanism” to reduce

GHG. However, what form this “enforcement mechanism” will take is not yet known.¹³

In a “cap and trade” or emissions trading mechanism, the government imposes a cap on the total level of CO₂ and other greenhouse gases that may be emitted. At the same time, the government creates permits, or allowances, for each unit of emissions allowed under the cap. Firms that emit CO₂ and other greenhouse gases must obtain and surrender a permit for each unit of emissions that they produce. The permits may be obtained from the government through initial (or periodic) allocations or by trading with other firms. The government can choose to give the permits away for free or to auction them.¹⁴ The trading price of permits will fluctuate, becoming more expensive when demand is high relative to supply (for example, when the economy is growing) and cheaper when demand is lower (for example, in a recession). In this way, the emissions trading mechanism creates a price on emissions as a result of setting a ceiling on the overall quantity of

¹⁰ D. Bower, “Canadian supreme court upholds Justin Trudeau’s carbon tax”, *Financial Times*, 25 March 2021.

¹¹ *Ibid.*

¹² Carbon Pricing Dashboard. World Bank Group. https://carbonpricingdashboard.worldbank.org/map_data.

¹³ Martin Levy. (2020, November 15). *President-Elect Biden Supports a “Carbon Enforcement Mechanism – Could that Mean a Price on Carbon?”* Environmental & Energy Law Program. Harvard Law School. <https://eelp.law.harvard.edu/2020/11/president-elect-biden-supports-a-carbon-enforcement-mechanism-could-that-mean-a-price-on-carbon/>.

¹⁴ *How do emissions trading systems work?* (2018, June 11). Grantham Research Institute on Climate Change and the Environment. <https://www.lse.ac.uk/granthaminstitute/explainers/how-do-emissions-trading-systems-work/>.

emissions.¹⁵

The European Union (“EU”) currently has the largest emissions trading mechanism in the world, covering 27 EU member States plus Iceland, Liechtenstein, and Norway. The EU emissions trading system limits the emissions of more than 11,000 heavy users of energy, such as power stations, industrial plants, and airlines operating between countries that are part of the mechanism. The mechanism reportedly covers approximately 40% of the EU’s greenhouse gas emissions.¹⁶

The World Bank reports that emissions trading mechanisms are being applied in 39 national jurisdictions and 29 subnational jurisdictions.¹⁷ It estimates that these initiatives cover 9 GtCO₂e representing 17% of global GHG emissions. In addition to the EU, emissions trading mechanisms have also been implemented in, among others, Switzerland, South Korea, New Zealand, and in several U.S. states and Canadian provinces.¹⁸ China launched a national emissions trading scheme in December 2017 after having piloted schemes at the local government level.¹⁹

Although, in theory, they should achieve similar outcomes,²⁰ there are important differences between a carbon tax and an emissions trading mechanism.

First, a carbon tax imposes a pre-defined price on emissions, but the total emissions that will be produced will not be known in advance. By contrast, with an emissions trading mechanism, the total amount of emissions is fixed and therefore known in advance. However, the price of emissions (i.e., the price of the permit) will vary.²¹

Second, the mechanisms differ in the way that they distribute the cost of reducing CO₂ and greenhouse gas emissions. In an emissions trading mechanism, governments frequently give out an initial allocation of permits for free. This reduces the initial cost of compliance for firms. Firms incur a cost once they have used up their initial allocation and need to purchase new permits.²² A carbon tax imposes an immediate cost on firms and thus may result in “a bigger initial hit to the balance sheet”.²³

Third, the costs of administration of the two policies may differ. Carbon taxes are

¹⁵ The Guardian, *supra* note 2.

¹⁶ EU Emissions Trading System (EU ETS). European Commission. https://ec.europa.eu/clima/policies/ets_en.

¹⁷ Carbon Pricing Dashboard. World Bank Group. https://carbonpricingdashboard.worldbank.org/map_data.

¹⁸ Grantham Institute, *supra* note 12.

¹⁹ *Ibid.*

²⁰ The Guardian, *supra* note 2.

²¹ *Ibid.*

²² *Ibid.*

²³ *Ibid.*

generally considered simpler to administer. An emissions trading mechanism requires new administrative structures to monitor emissions and trading markets and a large number of participating firms. This may limit the possibility of using an emissions trading mechanism in small or capacity-constrained countries.²⁴

Some economists recommend using a hybrid approach involving both elements of a carbon tax and of an emissions trading mechanism. Such hybrids include an emissions trading mechanism with a carbon price floor or ceiling. Hybrid schemes will tend to be more complex.²⁵

III. WTO issues raised by carbon pricing mechanisms

Domestic carbon pricing mechanisms may impact international trade in a number of ways. They can affect both domestic and foreign producers by increasing their costs. If the costs are imposed only on domestic producers, it can lead to loss of international competitiveness and so-called carbon leakage. Policies that

seek to also impose costs on foreign producers and those that seek to mitigate the costs imposed on domestic producers will have trade implications.

In addition, the international competitiveness of domestic producers may be affected because these mechanisms increase the costs of industries that emit GHG.²⁶ If the same costs are also not imposed on foreign producers, the domestic industry will lose competitiveness. For example, where country A applies a carbon tax and country B does not, carbon-intensive industries in country A will be placed at a competitive disadvantage vis-à-vis carbon-intensive industries in country B. This may potentially affect imports and exports. Country A's domestic firms may lose market share in the domestic market to cheaper imports from country B. Firms from country A may also lose market share in country B, as exports from country A become more expensive as a result of the carbon tax.

“Carbon leakage” refers to the risk that carbon pricing in a particular jurisdiction will lead carbon-intensive firms in that jurisdiction to relocate to countries that either do not tax or regulate car-

²⁴ Ian Parry. (2019). *Carbon-pricing strategies could hold the key to meeting the world's climate stabilization goals*. International Monetary Fund. <https://www.imf.org/external/pubs/ft/fandd/2019/12/pdf/the-case-for-carbon-taxation-and-putting-a-price-on-pollution-parry.pdf>.

²⁵ The Guardian, *supra* note 2.

²⁶ United Nations Environment Programme and the World Trade Organization, *Trade and Climate Change* (WTO, 2009), p. 98.

bon-emissions or do so in a less stringent manner.²⁷ In the example discussed above, carbon leakage would occur if firms from country A moved their production to country B to avoid the carbon tax.

A government imposing a carbon- pricing mechanism can address concerns about loss of international competitiveness and carbon leakage in different ways. A policy that is being actively considered by the European Union and that has been discussed extensively in some policy and academic circles is to implement “border adjustments”.²⁸ These adjustments seek to apply the carbon-pricing mechanism to foreign producers through a border tax on imports or by subjecting imports to the importing country’s domestic carbon legislation. Adjustments may also be applied to exports by exempting producers from the carbon-pricing mechanism, or reimbursing them for the carbon tax or the price of the emissions allowance, when the product is destined for overseas markets.

Carbon border adjustments can have both environmental and economic goals.

The environmental goal is to encourage firms in other countries to become “cleaner”. The economic objective is to offset the potential loss of competitiveness of domestic firms that must pay a carbon price through a carbon tax, an ETS or other mechanism.

As an alternative or in parallel with carbon pricing, government could also provide financial assistance to firms to facilitate their adjustment or to support their transition to cleaner technologies.

A paper by the Atlantic Council Global Energy Center explains that how an exporting country is impacted by a carbon border adjustment mechanism will depend on three factors: (i) the level of fossil fuel intensity of its industries; (ii) the percentage of GDP generated by exports to the country imposing the border adjustment; and (iii) the share of emission-intensive products in its exports.²⁹

The subsections that follow examine the WTO implications of carbon border adjustments and of financial assistance provided to firms.

²⁷ *Ibid.*, p. 99.

²⁸ Commission launches public consultations on energy taxation and a carbon border adjustment mechanism. European Commission. https://ec.europa.eu/taxation_customs/news/commission-launches-public-consultations-energy-taxation-and-carbon-border-adjustment-mechanism_en.

²⁹ Bell, R., & Benaim, E. (2020, October 27). *Carbon border adjustment: a powerful tool if paired with a just energy transition*. OECD. <https://oecd-development-matters.org/2020/10/27/carbon-border-adjustment-a-powerful-tool-if-paired-with-a-just-energy-transition>.

1. WTO rules on border tax adjustments

Border tax adjustments are not novel. The possibility of applying border tax adjustment has been contemplated since the General Agreement on Tariffs and Trade 1947 (“GATT 1947”). Today, it is generally accepted that an internal tax applied on a product is eligible for border adjustment. However, there is less certainty about the permissibility of adjusting taxes that are applied in relation to a so-called unincorporated process and production method (“PPM”)³⁰ or to a by-product of that production process.

As background, we note that Article II of the GATT 1994 prohibits WTO Members from imposing on imported products duties or charges other than ordinary customs duties.³¹ Article II, however, allows WTO Members to apply a charge equivalent to an internal tax to imported products without violating their tariff commitments. In particular, Article II:2(a) allows WTO Members to impose “a charge equivalent to an internal tax imposed consistently with the provisions of Article III:2 in respect of the like domestic product or in respect of an article from which the imported product

has been manufactured or produced in whole or in part”.

Article III prohibits WTO Members from discriminating against imported products on matters relating to internal taxation and regulation. Article III:2 in particular prohibits less favourable treatment of imported products vis-à-vis domestic like products and domestic products that are directly competitive or substitutable (for convenience, we will refer to them collectively as “like products”). The Ad Note to Article III of the GATT 1994 foresees the possibility of collecting an internal tax at the border, and clarifies that in such circumstances the measure is still an internal tax:

Any internal tax or other internal charge, or any law, regulation or requirement of the kind referred to in paragraph 1 which applies to an imported product and to the like domestic product and is collected or enforced in the case of the imported product at the time or point of importation, is nevertheless to be regarded as an internal tax or other internal charge, or a law, regulation or requirement of the kind referred to in paragraph 1, and is accordingly subject to the provisions of Article III.

The question of whether a carbon tax is

³⁰ An unincorporated PPM (also referred to as a “non-product-related PPM”) is a difference in the way a product is produced that leaves no trace in the final product, that is, the physical characteristic of the final product remains identical. See WTO-UNEP, *supra* note 26, p. 107.

³¹ WTO Members had the possibility of reserving the right to apply other duties or charges on particular products, but, in order to do so, had to reserve that right in their schedules of concessions.

eligible for adjustment in relation to imports therefore turns on whether it satisfies Articles II:2(a) and III of the GATT 1994. It bears noting at the outset that a Member may only apply a border tax adjustment where it has in place an internal tax in respect of the like domestic product or in respect of an article from which the imported product has been manufactured or produced in whole or in part. This discussion therefore proceeds on the assumption that the Member concerned applies a carbon tax domestically and is seeking to apply the tax to imported products.

The scope of permissible border adjustments under Articles II:2(a) and III was discussed by the 1970 GATT *Working Party on Border Tax Adjustments*, which stated:

...The Working Party concluded that there was convergence of views to the effect that taxes directly levied on products were eligible for tax adjustment. Examples of such taxes comprised specific excise duties, sales taxes and cascade taxes and the tax on value added. It was agreed that the TVA, regardless of its technical construction (fractioned collection), was equivalent in this respect to a tax levied directly - a retail or sales tax. Furthermore, the Working Party concluded that there was convergence of views to the effect that certain

taxes that were not directly levied on products were not eligible for tax adjustment. Examples of such taxes comprised social security charges whether on employers or employees and payroll taxes.

The Working Party noted that there was a divergence of views with regard to the eligibility for adjustment of certain categories of tax and that these could be sub-divided into

(a) "Taxes occultes" which the OECD defined as consumption taxes on capital equipment, auxiliary materials and services used in the transportation and production of other taxable goods. Taxes on advertising, energy, machinery and transport were among the more important taxes which might be involved. It appeared that adjustment was not normally made for taxes occultes except in countries having a cascade tax;

(b) Certain other taxes, such as property taxes, stamp duties and registration duties ... which are not generally considered eligible for tax adjustment. Most countries do not make adjustments for such taxes, but a few do as a few do for the payroll taxes and employers' social security charges referred to in the last sentence of paragraph 14.

It was generally felt that while this area of taxation was unclear, its importance - as indicated by the scarcity of complaints reported in connexion with adjustment of taxes occultes - was not such as to justify further examination.³²

³² Report of the Working Party on Border Tax Adjustments, WTO Doc. L/3464, 20 November 1970, at para. 14 ("The Working Party concluded that there was convergence of views to the effect that taxes directly levied on products were eligible for tax adjustment ... Furthermore, the Working Party concluded that there was convergence of views to the effect that certain taxes that were not directly levied on products were not eligible for tax adjustment").

Commentators have understood the Working Party to have clarified that indirect taxes may be adjusted at the border, while direct taxes may not.³³ The Working Party is understood to have been guided by the “destination principle”. The Organisation for Economic Co-operation and Development (“OECD”) defines the “destination principle” as a “[p]rinciple under a VAT regime which mandates that VAT on goods be paid in the country where the purchaser is resident (i.e. the country of consumption) at the rate that would have applied had the goods been purchased from a domestic supplier.”³⁴ The Working Party described the relevance of the destination principle as follows:

Most delegations stated ... that in their opinion such a distinction [between indirect and direct taxes for adjustment purposes] was already justified by the fact alone that indirect taxes by their very nature bear on internal consumption and were consequently levied, according to the principle of destination, in the country of consumption, while direct taxes - even assuming that they were partly passed on into prices—were borne by entrepreneurs’ profits or personal income.³⁵

Almost two decades later, the GATT panel in the *US – Superfund* dispute referred to the Working Party report in addressing a claim against the application by the United States of a border tax adjustment to imports of certain chemicals into its territory. The European Communities argued that the tax was not eligible for adjustment “because it was designed to tax polluting activities that occurred in the United States and to finance environmental programmes benefitting only United States producers”.³⁶

The *US – Superfund* panel considered that the “conclusions of the [*Border Tax Adjustments* Working Party report] clearly indicate, [that] the tax adjustment rules of the General Agreement distinguish between taxes on products and taxes not directly levied on products they do not distinguish between taxes with different policy purposes”.³⁷ The panel further noted that “whether a sales tax is levied on a product for general revenue purposes or to encourage the rational use of environmental resources, is therefore not relevant for the determination of the eligibility of a tax for border tax adjustment”.³⁸ The panel concluded that “the tax on certain chemicals, being a tax

³³ Climate Policy Leadership in an Interconnected World – What role for Border Carbon Adjustment? OECD. <http://www.indiaenvironmentportal.org.in/files/file/climate%20leadership%20policy.pdf>, footnote 8.

³⁴ Glossary of Tax Terms. OECD. <https://www.oecd.org/ctp/glossaryoftaxterms.htm#D>.

³⁵ Working Party, *supra* note 27, para. 21.

³⁶ GATT Panel Report, *US – Superfund*, para. 5.23.

³⁷ *Ibid.*, para. 5.2.4.

directly imposed on products, was eligible for border tax adjustment independent of the purpose it served”.³⁹

Based on the above decisions, the conventional wisdom is that an internal tax applied on a product is eligible for border adjustment. For example, a tax on fossil fuels may be applied to imports of fossil fuels consistently with Articles II:2(a) and III:2 of the GATT 1994, provided that there is no evidence of less favourable treatment of imported fossil fuels.

The situation is more ambiguous when the carbon tax is not imposed on the product as such, but rather is imposed on producers as a function of how much GHG they emit during the production process. For illustrative purposes, consider the situation of a tax imposed on steel producers that is calculated per ton of GHG emitted in the production of steel.

The question under Article II:2(a) is whether such a tax is “*in respect of* the like domestic *product* or an *article* from which the imported product has been manufactured or produced in whole or in part”. Article II:2(a) refers to Article III:2 of the GATT 1994, under which the question is whether the tax falls within

the terms “taxes or other internal charges of any kind... applied, directly or indirectly, to ... products”. If one takes the distinction between direct and indirect taxes discussed by the *Border Tax Adjustments* Working Party, the question would be whether such a carbon tax would be considered an indirect tax.

Some commentators have argued that there is sufficient nexus between a tax on the emissions released during the production process of a product and the product itself to justify treating the tax as a tax “applied indirectly to products”.⁴⁰ These commentators note that the “very idea of a carbon tax, even where it is imposed on producers, is to internalise the social cost of carbon in the ultimate price of products”.⁴¹ They also argue that the costs of the tax are likely to be passed on to consumers who purchase the product.⁴²

The remission of taxes on exported products is addressed in the Agreement on Subsidies and Countervailing Measures (“SCM”). As its name indicates, the SCM Agreement establishes disciplines on the use of subsidies, including export subsidies. Annex I of the SCM Agreement includes an illustrative list of export subsidies. It provides some

³⁸ *Ibid.*

³⁹ *Ibid.*

⁴⁰ Joost Pauwelyn, “Carbon leakage measures and border tax adjustments under WTO law” (2013). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2026879, p. 29.

⁴¹ *Ibid.*, p. 29.

⁴² *Ibid.*

guidance on what taxes are deemed to be indirect or direct, and when such taxes can be adjusted at the border. While these provisions concern adjustment on exports, they could be used as contextual guidance for the question of whether carbon border adjustments are permissible.⁴³

Several items in Annex I refer to the remissions of “indirect” or “direct” taxes. Footnote 58 defines direct and indirect taxes as follows:

The term “direct taxes” shall mean taxes on wages, profits, interests, rents, royalties, and all other forms of income, and taxes on the ownership of real property;

The term “indirect taxes” shall mean sales, excise, turnover, value added, franchise, stamp, transfer, inventory and equipment taxes, border taxes and all taxes other than direct taxes and import charges;

A carbon tax does not correspond to any of the types of taxes specifically listed in the definition of direct taxes. The definition of indirect taxes is more open and includes “all taxes other than direct taxes and import charges”.⁴⁴ The definition of indirect taxes thus potentially could be read to include taxes not specifically listed in the definition of direct taxes, including a tax on GHG emitted in the production of a product.

Some of the items in Annex I use language that suggests a looser relationship between the tax and the product. For example, item (g) refers to “indirect taxes... levied in respect of the production and distribution of like products when sold for domestic consumption”.⁴⁵ Item (h) allows the remission of prior-stage cumulative indirect taxes on inputs used in the production of exported products. Item (h) cross-refers to Annex II to the SCM Agreement, which contains guidelines on consumption of inputs in the production process. Footnote 61 to Annex II clarifies that “[i]nputs consumed in the production process are inputs physically incorporated, energy, fuels and oil used in the production process and catalysts which are consumed in the course of their use to obtain the exported product”. Thus, footnote 61 would seem to treat taxes on energy used in the production of a good as an indirect tax and, therefore, would allow adjustment of such taxes upon exportation.

Even if the above were accepted, there is an additional element that generates further uncertainty. Some could question whether a tax on GHG emissions is a tax on energy consumed in the production process. Those who oppose adjustability could argue that GHG emissions are a

⁴³ *Ibid.*, p. 27.

⁴⁴ *Ibid.*

⁴⁵ Footnote omitted.

by-product of the production process rather than energy consumed in the process of products. A potential response by those who favour adjustability is that this is an artificial distinction and that ultimately a carbon tax on GHG emissions is a tax on energy.

Some commentators have also argued that because a carbon tax is intended to internalize the social cost of carbon in the price of the product, there is a sufficient nexus between the carbon tax and the product to justify treating such taxes as a tax “applied ... indirectly ... to products” under Article III:2.⁴⁶

If a carbon tax is found to be eligible for adjustment, it would have to comply with Article III:2 of the GATT 1994 which prohibits less favourable treatment of imported products vis. a vis. domestic like products. Broadly speaking, this means that imported products must be subject to the same (or lower) tax rate as the “like” domestic products. It also generally means that the method for calculating the tax and any administrative requirements relating to the tax should not be more onerous for the imported products than for the domestic “like” products.

However, the assessment under Article

III:2 raises additional issues that are not firmly settled in the case law. An important question is whether two products that in all respects are identical, except in the amount of GHG emissions released during the production process, would be considered “like”. The example typically given is steel,⁴⁷ and the hypothetical question that is usually posed is whether a ton of steel produced using cleaner technologies is “like” steel produced using dirtier technologies, i.e., whether lower-GHG steel “is like” higher-GHG steel. If the two products are found to be “like”, the application of a carbon tax on imports of steel could be problematic where imported steel is predominantly higher-GHG (and thus attracts a higher carbon tax burden) and domestic steel is lower-GHG (and therefore attracts a lower tax burden). In the GATT era, distinctions based on unincorporated or non-product related process or production methods (“PPM”) were not allowed and thus this example would have been found to be inconsistent with Article III:2.⁴⁸ In contrast, WTO case law has allowed some limited scope to consider unincorporated PPMs as part of the analysis of whether or not two products are “like”.⁴⁹ Thus, for example, the “likeness” analysis may take into ac-

⁴⁶ *Ibid.*, p. 29.

⁴⁷ See, for example, Jennifer Hillman. “Changing climate for carbon taxes: Who’s afraid of the WTO?” *Climate & Energy Policy Paper Series* (2013), p. 7.

⁴⁸ See P. Van den Bossche & W. Zdouc, *The Law and Policy of the World Trade Organization* (Cambridge University Press, 2007), pp. 388–389

count whether consumers draw distinctions between two products based on an unincorporated PPM, such as whether the steel was produced using electricity from renewable sources. If consumers have a strong enough preference for “clean” steel such that they would not substitute it for “dirty” steel, the two products could possibly be found not to be “like” and the carbon tax would not be considered discriminatory. In the absence of such a preference, and barring a change in the approach to “likeness”, critics would argue that the two products are “like” notwithstanding the differences in production process, and thus the differential tax burden would be discriminatory under Article III:2.

A final point to raise is that application of a carbon border adjustment on imports raises complex issues concerning measurement and verification. These issues should not be underestimated. If these issues are not properly addressed, they could also provide a basis for opponents to challenge carbon border tax adjustments. An importing country would need to create a mechanism to collect and verify information about the GHG emissions of foreign producers. One commentator has suggested this could be done by

requiring imports to be accompanied by a certification or label with the necessary information.⁵⁰ According to this commentator, “[t]he best system and one that would be least likely to raise WTO concerns would determine the carbon content of both domestically-produced and imported products on a product- and plant-specific basis”.⁵¹ She explains:

In the case of many traded manufactured products, the specific manufacturing plant, its energy source, and the process by which the product is produced substantially affect the carbon footprint of the product; the best assessments of carbon content would be at the level of a manufacturing facility. Steel, for example, produced in an electric-mini mill that gets its power from a nuclear plant would have a much smaller carbon footprint than steel produced in a blast-oxygen furnace that gets its power from a coal-fired plant. If all products—both domestic and imported—were taxed using the same methodology that reflects the amount of carbon that went into their specific production and that has, in that sense, become a part of that particular product, then application of such a BTA would be much less likely to run afoul of the WTO’s non-discrimination concerns.⁵²

This commentator acknowledges that “such a system may be difficult and com-

⁴⁹ See Appellate Body Report, *EC - Asbestos*, paras. 113–122.

⁵⁰ *Ibid.*

⁵¹ *Ibid.*

⁵² *Ibid.*, p. 7–8.

plicated to administer particularly if both the tax and the BTA extend to indirect emissions (such as off-site generated electricity, heat or steam, or transport emissions)” and “would likely need an appropriate alternative means to set the carbon content of an imported good if companies, importers or countries were unwilling or unable to provide the necessary data”.⁵³ As the “safest alternative… from a WTO law perspective”, she proposes to assume that the carbon content of the imported product is equal to the carbon content of the like product produced by the “predominant method of production” or even the “best available technology” in the importing country.⁵⁴ Firms exporting less carbon intensive products than those produced by the “predominant method of production” in the importing country could petition for recognition of their less carbon intensive product and thus face a smaller border tax adjustment.⁵⁵

Having considered border adjustments in relation to carbon taxes, the next section addresses the possibility of border adjusting in relation to an emissions trading mechanism.

2. Border adjustment of an emissions trading mechanism

A carbon border adjustment could also be considered by a country that chooses to impose a price on carbon through an emissions trading mechanism. Indeed, the European Union appear to be presently contemplating this scenario.

A threshold issue that arises when considering the legality of a border adjustment of an emission trade mechanism is whether the obligation to purchase emissions allowance is a tax or a regulation. If it is considered to be a tax, the discussion of its eligibility for adjustment would proceed along the same lines discussed above in relation to carbon taxes. If it is not a tax, it cannot be adjusted under Article II:2(a) of the GATT 1994, which permits only border charges “equivalent to an internal tax”, not border charges that are equivalent to an internal regulation.⁵⁶

Article III:4 of the GATT 1994 prohibits Members from treating imported products less favourably than “like” domestic products with respect to internal regulations. Article III:4 allows the application of internal regulations on imported products, provided there is no

⁵³ *Ibid.*, p. 8.

⁵⁴ *Ibid.*

⁵⁵ *Ibid.*

⁵⁶ Trade Related Aspects of a Carbon Border Adjustment Mechanism. A Legal Assessment. European Parliament, Policy Department, Directorate-General for External Policies.
[https://www.europarl.europa.eu/cmsdata/210514/EXPO_BRI\(2020\)603502_EN.pdf](https://www.europarl.europa.eu/cmsdata/210514/EXPO_BRI(2020)603502_EN.pdf), p. 9.

discrimination. Furthermore, as discussed earlier, the Ad Note to Article III allows application of certain laws, regulations and requirements to imported products at the border.⁵⁷

In order to fall under the Ad Note, the emissions trading mechanism would have to be a law, regulation or requirement affecting the internal sale, offering for sale, purchase, transportation, distribution or use of products. The term “affecting” in the first element has been interpreted broadly to include any measure that modifies the conditions of competition of the products concerned in the market of the importing Member.⁵⁸ The application of a carbon border adjustment to imported products would likely be considered to affect the internal sale or offering for sale since it would likely impose an additional cost on the imported product. Indeed, some could argue that the very purpose of the adjustment is to modify the conditions of competition of the imported product.

This would mean that, if the obligations relating to an emissions trade mechanism are considered to be a regulation, it could be applied to imports. However, for the adjustment to be consistent with Article III:4, it would have to treat imported products no less favourably than domestic like products. Thus, an adjust-

ment could not be applied to imported products when the like domestic product is not subject to the emissions trading mechanism. Moreover, the issue of likeness between two products that are identical in all respects except for the level of GHG emitted during their production process also arises under Article III:4. This issue was discussed above in connection with the adjustability of carbon taxes. Finally, similar issues relating to the collection and verification of information from foreign producers likewise arise in relation to the application of an adjustment in the case of an emissions trading mechanism.

3. The general exceptions in Article XX of the GATT 1994

Even if a carbon border adjustment on imports were found to run afoul of Article II or Article III of the GATT 1994, it could be justified under the general exceptions of Article XX. Policies that satisfy the requirement of Article XX of the GATT 1994 are permitted, notwithstanding being inconsistent with other provisions of the GATT 1994. Article XX has ten subparagraphs addressing different non-trade values or interests. In particular, the application of

⁵⁷ Pauwelyn, *supra* note 35, p. 36.

⁵⁸ Appellate Body Report, *US - FSC (Article 21.5 - EC)*, para. 210; see also GATT Panel Report, *Italy - Agricultural Machinery*, para. 12.

the border adjustment could fall under subparagraphs (b) of (g) of Article XX, both of which are discussed below.

Subparagraph (b) covers measures “necessary to protect human, animal or plant life or health”. Given the risks that climate change poses to human health, animals, plants and eco-systems more broadly, policies that seek to reduce GHG emissions fall within subparagraph (b). Indeed, the panel in *Brazil – Taxation* found that the reduction of CO2 emissions is a policy objective that is covered by subparagraph (b) of Article XX of the GATT 1994.⁵⁹

The assessment of a carbon border adjustment on imports under Articles XX(b) and XX(g) will be fact-intensive and the outcome will depend on the particular design of the measure. The burden of proving that the measure is justified under Article XX would rest on the party invoking that defence.⁶⁰

In the case of subparagraph (b), a Member imposing the border adjustment would have to show that the measure is

designed to combat climate change and that it is necessary to achieve that objective. The assessment of necessity involves the weighing and balancing of the following factors: (i) the importance of the objective pursued, (ii) the contribution of the measure to that objective, and (iii) the trade- restrictiveness of the measure.⁶¹ In most cases, the assessment also will require a determination as to “whether a WTO-consistent alternative measure which the Member concerned could ‘reasonably be expected to employ’ is available, or whether a less WTO- inconsistent measure is ‘reasonably available’”.⁶²

Subparagraph (g) covers measures “relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption”. The term “conservation” has been interpreted to mean “the preservation of the environment, especially of natural resources”⁶³ and “exhaustible natural resources” has been understood to include living organisms.⁶⁴ The terms “relating

⁵⁹ Panel Report, *Brazil – Taxation*, para. 7.881. The panel in *US – Gasoline* had earlier found that a policy to reduce air pollution resulting from the consumption of gasoline was a policy within the range of those concerning the protection of human, animal, and plant life or health mentioned in Article XX(b). (Panel Report, *US – Gasoline*, para. 6.10)

⁶⁰ Appellate Body Report, *US – Wool Shirts and Blouses*, p. 14.

⁶¹ Appellate Body Report, *EC – Seal Products*, para. 5.214 (referring to Appellate Body Reports, *EC – Seal Products*, para. 5.169; *Brazil – Retreaded Tyres*, para. 182); and *US – Gambling*, para. 307 (referring to Appellate Body Report, *Korea – Various Measures on Beef*, para. 166). See also Appellate Body Report, *Colombia – Textiles*, paras. 5.70–5.75.

⁶² Appellate Body Report, *Korea – Various Measures on Beef*, para. 166.

⁶³ Appellate Body Report, *China – Raw Materials*, para. 355.

⁶⁴ Appellate Body Report, *US – Shrimp*, para. 131.

to” require “a close and genuine connection of ends and means” between the measure and the environmental policy objective pursued.⁶⁵

Climate change threatens habitats and can lead to the loss of animal and plant species.⁶⁶ The policy of reducing GHG through a carbon tax or emissions trading mechanism is likely to be found to “relate to the conservation of exhaustible natural resources”.⁶⁷ Thus, the focus of the inquiry under subparagraph (g) is likely to be on whether it is made effective in conjunction with restrictions on domestic production or consumption”. This is a requirement of even-handedness.⁶⁸

If the measure is found to satisfy the requirements of subparagraph (b) or (g), it must then also satisfy the chapeau of Article XX, which prohibits the regulating Member from applying the measures in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or as a disguised restriction on international trade.

4. Do carbon border adjustments for exports constitute subsidies?

As discussed previously, a carbon tax or an obligation to purchase emissions allowances as part of an emissions trading mechanism can adversely impact the competitiveness of exports to overseas markets. These exports are likely to be more expensive as a result of the carbon tax or the cost of the emissions allowance. The effect on the competitiveness of exports will be greater if foreign competitors do not have to pay carbon taxes or purchase emissions allowances.

These competitiveness concerns in export markets can be addressed by excluding exports from the carbon tax or the emissions trading mechanism, or by reimbursing exporters for the cost of the carbon tax or emissions allowances. This, in turn, raises the question of whether these exclusions or reimbursement would constitute subsidies for purposes of the WTO SCM Agreement. A related question is whether, if they do constitute subsidies, the measures would constitute export subsidies that are prohibited under WTO law?

While a carbon border adjustment on

⁶⁵ Appellate Body Report, *China – Raw Materials*, para. 355.

⁶⁶ International Union for Conservation of Nature. Species and climate change. <https://www.iucn.org/theme/species/our-work/species-and-climate-change>.

⁶⁷ WTO-UNEP, *supra* note 26, p. 108; Hillman, *supra* note 42, pp. 10–11.

⁶⁸ Appellate Body Report, *US – Shrimp*, para. 144.

exports may be justified from the perspective of the loss of international competitiveness, it can be criticized from an environmental perspective. A recent OECD report explains:

Application to exports would involve rebating, at the point of export, any charges levied under a carbon pricing scheme for which a BCA regime adjusts at the point of import. Such a rebate would serve to protect the competitiveness of the implementing country's covered sectors in global markets. From an environmental perspective, however, it would work against full-cost accounting of carbon emissions in the products of domestic firms, unless those externalities were being internalised through some climate policies in the countries to which they are exported.⁶⁹

However, this report recognizes that, in some circumstances, a border adjustment could have positive environmental effects. The report adds that “[f]rom a more dynamic environmental perspective, including exports might save relatively clean firms with strong export profiles that otherwise would have been put out of business by their loss of market share abroad – thereby preventing leakage”.⁷⁰

A. Exclusion from or reimbursement of a carbon tax

An exclusion from a tax or its reimbursement normally would be considered a subsidy for purposes of the SCM Agreement. The Agreement defines a subsidy as a “financial contribution” by a government that confers a “benefit”. A “financial contribution” involves the transfer of something of economic value from the government to a firm.⁷¹ A “benefit” exists where the financial contributions leaves the recipient better off than it would otherwise have been, absent the financial contribution.⁷²

The exclusion from a tax or its reimbursement will normally be characterized as a financial contribution in the form of “government revenue that is otherwise due is foregone or not collected” under Article 1.1(a)(1)(ii) of the SCM Agreement. WTO panels have tended to take an axiomatic approach to benefit in cases of revenue foregone. For example, referring to prior panels which had expressed a similar view, the panel in *India – Export Related Measures* noted that “relief from taxation otherwise due is not generally available to market participants, nor does it exist as a general condition in

⁶⁹ OECD, *supra* note 28, para. 74. (footnote omitted)

⁷⁰ *Ibid.*

⁷¹ Appellate Body Report, *US – Softwood Lumber IV*, para. 51.

⁷² Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, paras. 635-636.

the marketplace”.⁷³

Although a tax benefit would normally be considered a subsidy, footnote 1 of the SCM Agreement excludes certain tax benefits from the definition of subsidy. This footnote is of particular relevance to tax benefits provided to exporters in connection with a carbon tax. Footnote 1 provides:

In accordance with the provisions of Article XVI of GATT 1994 (Note to Article XVI) and the provisions of Annexes I through III of this Agreement, the exemption of an exported product from duties or taxes borne by the like product when destined for domestic consumption, or the remission of such duties or taxes in amounts not in excess of those which have accrued, shall not be deemed to be a subsidy.

In *US – FSC*, the WTO Appellate Body observed that, “under footnote 1 of the SCM Agreement, ‘the exemption of an exported *product* from duties or taxes *borne by the like product* when destined for domestic consumption … shall not be deemed to be a subsidy’”.⁷⁴ The Appellate Body further observed that tax measures identified in footnote 1 as not constituting a subsidy involve the exemption of exported *products* from

product-based consumption taxes.⁷⁵

The WTO panel in *India – Export Related Measures* explained the difference between the exemption of duties or taxes and the remission of such duties or taxes. The difference is that “in the case of exemptions, the duty or tax liability never arises, whereas, in the case of remissions, the liability first arises, but is later remitted, including by returning the payment if one was already made”.⁷⁶

The key question to determine whether a carbon tax exemption is a subsidy is whether the carbon tax is “borne by the like product when destined for domestic consumption”. In the case of a remissions of a carbon tax, the key question is whether it is a remission of taxes “in amount not in excess of those which have accrued”.

The answers to these questions are more straightforward when a carbon tax is payable upon the purchase of a product, for example where the carbon tax is applied on the amount of fossil fuel used. In such cases, the tax would likely be considered to be “borne by” the product and the adjustment of the tax when the fossil fuel is destined for exportation likely would fall within footnote 1.⁷⁷ Furthermore, the adjustment for a

⁷³ Panel Report, *India – Export Related Measures*, para. 7.451.

⁷⁴ Emphasis added.

⁷⁵ Appellate Body Report, *US – FSC*, para. 93. (original emphasis)

⁷⁶ Panel Report, *India – Export Related Measures*, para. 7.169.

prior-stage cumulative indirect tax on energy as an input is likely also allowed.⁷⁸ However, the outcome is more uncertain when the carbon tax is applied to producers and particularly when it is a function of the GHG released by the producer in the production process of the exported good. It has been suggested that in this situation the answer depends on whether the carbon tax is considered to be an indirect tax.⁷⁹

As noted earlier, Annexes I and II of the SCM Agreement are particularly relevant for the question of whether an adjustment of a carbon tax for export is permissible.

Item (g) of the Illustrative List of Export Subsidies provides that “[t]he exemption or remission, in respect of the production and distribution of exported products, of indirect taxes in excess of those levied in respect of the production and distribution of like products when sold for domestic consumption”.⁸⁰

Item (h) states:

The exemption, remission or deferral of prior-stage cumulative indirect taxes on goods or services used in the production of exported products in excess of the exemption, re-

mission or deferral of like prior-stage cumulative indirect taxes on goods or services used in the production of like products when sold for domestic consumption; provided, however, that prior-stage cumulative indirect taxes may be exempted, remitted or deferred on exported products even when not exempted, remitted or deferred on like products when sold for domestic consumption, if the prior-stage cumulative indirect taxes are levied on inputs that are consumed in the production of the exported product (making normal allowance for waste). This item shall be interpreted in accordance with the guidelines on consumption of inputs in the production process contained in Annex II.⁸¹

Footnote 58, which, as discussed earlier, contains definitions of direct and indirect taxes, applies to both items.

Carbon taxes are usually non-cumulative and therefore the directly applicable provision is item (g).⁸² Nevertheless, item (h) is still helpful in providing some contextual guidance.

Under item (g), a tax exemption or remission must satisfy the following three conditions in order not to be an export subsidy: (i) it must be “in respect of the production and distribution of goods”; (ii) it must be an exemption or remission of

⁷⁷ Hillman, *supra* note 42, p. 6.

⁷⁸ OECD, *supra* note 28, para. 44.

⁷⁹ *Ibid.*, para. 75.

⁸⁰ Footnote omitted.

⁸¹ Footnotes omitted.

⁸² Pauwelyn, *supra* note 35, p. 29.

“indirect taxes”; and (iii) it must not be “in excess of the indirect taxes levied in respect of the production and distribution of like products when sold for domestic consumption”.

The first element seems broad enough to accommodate the exemption or remission of a carbon tax imposed on producers based on the GHG emissions released in the production of the product. The second element raises similar issues as those discussed earlier in relation to the border adjustment on imports. A carbon tax on the energy used by a producer is likely to be considered an indirect tax for purposes of item (g). This conclusion is based on the relatively broad definition of indirect taxes in footnote 58 together with the fact that item (h) and Annex II of the SCM Agreement treat taxes on energy as indirect taxes. The more difficult question is whether a carbon tax on GHG emissions would be considered an indirect tax. The concern is that, emissions could be characterized as a by-product of energy used in the production process, rather than as an input. This issue has not been resolved and thus there remains some uncertainty about whether a WTO panel would accept that a carbon tax tied to emissions released during the production process is an indirect tax for

purposes of item (g). A recent OECD report argues that “however this question is answered on the import side, there should be equality of treatment with rebates applied on the export side (and vice-versa)”.⁸³

Even if an exemption or remission from an indirect tax is considered to be an indirect tax, it would need to be applied consistently with the last element articulated in item (g). In other words, the exclusion or remission must not exceed the indirect taxes levied in respect of the production and distribution of like products when sold for domestic consumption. Thus, the WTO Member providing the exemption or remission would have to ensure that the exemption or remission is designed in a way that avoids exporters receiving a tax benefit that goes beyond the carbon tax imposed when the like product is destined for the domestic market.

B. Exclusion from an emissions trading mechanism or reimbursement of allowances

Some commentators have suggested that the exclusion of exports from an obligation to purchase allowances under an emissions trading mechanism, or the reimbursement of the payment for the

⁸³ OECD, *supra* note 28, para. 45.

allowances, may be more difficult to defend under the SCM Agreement.⁸⁴ As with the discussion above relating to border adjustment on imports, the initial question is how to characterize the obligation to pay for allowances under an emissions trading mechanism under the GATT 1994. If it is characterized as a tax, the analysis would proceed along the lines discussed earlier in relation to the border adjustment on exports of carbon taxes. However, if it not characterized as an indirect tax, it may be subject to the disciplines of the SCM Agreement.

One commentator has suggested that emissions allowances should be treated as a good, just like standing timber was treated as a good in *US – Softwood Lumber IV*.⁸⁵ Under this theory, a government that gives free emissions allowances to its exporters would be providing a good for less than adequate remuneration under Articles 1.1(a)(1)(iii) and 14(d) of the SCM Agreement. It is unclear whether a WTO panel would consider the analogy with standing timber to be appropriate. A panel may consider that the right to emit GHG is not a “good” in the sense of being “property or

possessions” or “movable property”.⁸⁶ Nor does this right seem to fall within the panel’s and the Appellate Body’s understanding of “goods” as referring to “items that are tangible and capable of being possessed”.⁸⁷ Instead, the right to emit GHG would seem to be more of an intangible.

Others could alternatively argue that an allowance is a financial instrument that has value and, therefore, the provision of allowances by a government to firms could be characterized as a direct transfer of funds or a potential direct transfer of funds under Article 1.1(a)(1)(i).

If an allowance is characterized as a direct transfer of funds or a provision of a good, the exemption or remissions of the payment of allowances would not fall within footnote 1 and thus it would be a subsidy subject to the disciplines of the SCM Agreement.

C. Contingency on exportation

Article 3.1(a) of the SCM Agreement prohibits subsidies that are contingent, in law or in fact, whether solely or as one of several other conditions, upon export

⁸⁴ OECD, *supra* note 28, para. 48.

⁸⁵ Robert Howse, “Climate mitigation subsidies and the WTO legal framework: A policy analysis”. International Institute for Sustainable Development (2010).
https://www.iisd.org/system/files/publications/bali_2_copenhagen_subsidies_legal.pdf.

⁸⁶ Appellate Body Report, *US – Softwood Lumber IV*, para. 58 (referring to Shorter Oxford English Dictionary, 5th ed., W.R. Trumble, A. Stevenson (eds.) (Oxford University Press, 2002), Vol. I, p. 1125).

⁸⁷ Appellate Body Report, *US – Softwood Lumber IV*, para. 59.

performance” and includes those illustrated in Annex I.⁸⁸ In so far as eligibility to receive the exemption or remission of the carbon tax, or of the obligation to pay for emissions allowances, is made conditional on exportation or is limited to exporters, it would fall within the prohibition in Article 3.1(a).

From the point of view of a complaining Member, challenging a measure as an export subsidy has two advantages. The first is that export subsidies are presumed to be specific in accordance with Article 2.3 of the SCM Agreement. This means that there is no need for a complaining party to demonstrate the subsidies are specific to an industry.⁸⁹ The second advantage is that export subsidies are prohibited. As a consequence, once export contingency is demonstrated, a complaining party does not need to demonstrate adverse effects.

D. Expiration of the green box

Direct financial assistance is another option that could be used by a government to help domestic industry absorb the costs of complying with stricter carbon regulations. For example, governments could provide financial assistance to support industry ef-

forts to update to cleaner technologies (e.g., technologies that reduce energy consumption or use cleaner sources of energy).

When the SCM Agreement entered into force, it included a “green box” of subsidies that were not actionable, that is, subsidies that could not be challenged at the WTO and could not be subject to countervailing duties. Three categories of non-actionable subsidies were set out in Article 8 of the SCM Agreement. One of these categories was for subsidies that provide “assistance to 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”.⁹⁰ Another category was for research activities conducted by firms or by higher education or research establishments on a contract basis. This latter category could have provided a safe-harbour for financial assistance for research in climate change-mitigation technologies.

Article 8 had an initial duration of five years, beginning with the date of entry into force of the WTO Agreement.⁹¹ The SCM Committee was tasked with reviewing the operation of Article 8 “with a

⁸⁸ Footnotes omitted.

⁸⁹ SCM Agreement disciplines only apply to specific subsidies. See Article 1.2 of the SCM Agreement.

⁹⁰ Article 8.2(c) of the SCM Agreement.

⁹¹ Article 31 of the SCM Agreement.

view to determining whether to extend [its] application, either as presently drafted or in a modified form, for a further period". The SCM Committee undertook this review in 1999, but was unable to reach consensus on extending the application of Article 8.⁹² Article 8 therefore lapsed at the end of 1999.

Several commentators have proposed re-establishing a category of non-actionable subsidies, while adapting the criteria to make it easier for countries to pursue climate change- mitigation policies.⁹³

E. Applicability of the General Exceptions of the GATT 1994

While Article XX of the GATT 1994 would be available to justify a carbon border adjustment on imports even if it runs afoul of Articles II:2(a) or III, it may not be available to justify a carbon border adjustment on exports that is not in conformity with the disciplines of the SCM Agreement. In its recent report, the OECD notes that most analysts agree that Article XX does not cover breaches of obligations in WTO agreements other than the GATT 1994.⁹⁴ Several commen-

tators have suggested that Article XX does not apply to the SCM Agreement obligations.⁹⁵ Some commentators have proposed that WTO Members agree to extend the application of Article XX to subsidies that address climate change.⁹⁶ However, even if Article XX were to apply to the SCM Agreement, some may question whether it would justify exemptions from carbon taxes for exports given that they may adversely impact efforts to reduce GHG emissions.⁹⁷

IV. Trade and climate change policy discussions at the WTO

The WTO Committee on Trade and Environment ("CTE") was established in the 1994 Decision on Trade and Environment. Its terms of reference included addressing the relationship between WTO provisions and trade measures for environmental purposes, as well as the relationship between environmental policies relevant to trade and environmental measures with significant trade effects and the provisions of the WTO.⁹⁸

⁹² WTO Analytical Index, SCM Agreement, Article 31, Practice, para. 1.

⁹³ See, for example, Howse, *supra* note 66, p. 21.

⁹⁴ OECD, *supra* note 28, para. 55.

⁹⁵ See, for example, Steve Charnovitz, "Green Subsidies and the WTO". The World Bank (2014), p. 10.

⁹⁶ Andrew Green "Trade rules and climate change subsidies" *World Trade Review*, Vol. 5, Issue 3, (2006), pp. 377-414. See also Howse, *supra* note 66, pp. 17-19.

⁹⁷ OECD, *supra* note 28, para. 74.

Notably, it also included discussing the relationship between WTO provisions and charges and taxes imposed for environmental purposes.

Recent CTE meetings have included discussions on climate change. For example, at the 3 July 2020 meeting of the CTE, the Ambassador of the United Kingdom briefed Members on the organization of the 26th Conference of the Parties to the United Nations Framework Convention on Climate Change (“UNFCCC”).⁹⁹ WTO Members have also used the CTE to brief the Membership as a whole on other initiatives being pursued in the WTO context in relation to climate change.¹⁰⁰ Some of these initiatives are discussed below. The UNFCCC participates in meetings of the CTE, while the WTO Secretariat attends meetings of the UNFCCC Conference of the Parties (“COP”).

In the Doha Ministerial Declaration, WTO Members also agreed to launch negotiations on:

With a view to enhancing the mutual supportiveness of trade and environment, we agree to negotiations, without prejudging their outcome, on:

- (i) the relationship between existing WTO rules and specific trade obligations set out in multilateral environmental agreements (“MEAs”). The negotiations shall be limited in scope to the applicability of such existing WTO rules as among parties to the MEA in question. The negotiations shall not prejudice the WTO rights of any Member that is not a party to the MEA in question;
- (ii) procedures for regular information exchange between MEA Secretariats and the relevant WTO committees, and the criteria for the granting of observer status;
- (iii) the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services.¹⁰¹

These negotiations have been taking place in Special Sessions of the Committee on Trade and Environment (“CTESS”). The WTO Secretariat has stated that “[g]iven the present consensus in the international community for multilateralism and concerted actions to combat climate change, the importance of

⁹⁸ Decision on Trade and Environment. WTO Committee on Trade and Environment. https://www.wto.org/english/docs_e/legal_e/56-dtenv.pdf.

⁹⁹ Committee on Trade and Environment, Report of the meeting held on 3 July 2020, WTO Doc. WT/CTE/M/69, 29 September 2020, paras. 2.1–2.5.

¹⁰⁰ *Ibid.*, para. 1.9.

¹⁰¹ World Trade Organization, Ministerial Declaration of 14 November 2001, WTO Doc. WT/MIN(01)/DEC/1, 20 November 2001, para. 31.

these negotiations aimed at a harmonious relationship between trade and environment regimes cannot be overemphasized”.¹⁰²

The WTO Committee on Technical Barriers to Trade (“TBT Committee”) has a leading role in the discussion of technical regulations and standards, and has been active in reviewing and discussing technical specifications and labelling requirements adopted by WTO Members to mitigate climate change.¹⁰³

Some WTO Members have launched new initiatives to address issues relating to climate change. These include an initiative launched in November 2020 by 53 WTO Members for Trade and Environmental Sustainability Structured Discussions (“TESSD”).¹⁰⁴ These discussions are intended to complement the existing work of the CTE and other relevant WTO committees and bodies. The initiative is being coordinated by Canada and Costa Rica. The topics proposed for discussion include trade and climate change; decarbonizing supply chains; the circular economy; biodiversity loss; fossil fuel subsidies; and border carbon adjustments measures.

Some WTO Members oppose discussions of climate change issues at the WTO. For instance, at the July 2020 CTE meeting, Saudi Arabia cautioned that “climate change issues were discussed under the Paris Agreement and could not be discussed or even open for interpretation under any forum other than the United Nations Framework Convention on Climate Change (UNFCCC)”.¹⁰⁵

Discussions about carbon border adjustments are likely to become more prominent in the WTO in the upcoming months as a result of the European Union’s announcement that it intends to apply such measures. At the November 2020 meeting of the CTE, the European Union briefed Members on the trade aspects of the European Green Deal and its objective of climate neutrality by 2050. To achieve this, the European Union said it intends to adopt a carbon border adjustment mechanism for selected sectors to avoid carbon leakage. The European Union claimed that the mechanism would be WTO-compatible and would be adopted through a fully transparent process.¹⁰⁶ Some of the Members attending the meeting expressed

¹⁰² Activities of the WTO and the challenge of climate change. World Trade Organization. https://www.wto.org/english/tratop_e/envir_e/climate_challenge_e.htm.

¹⁰³ *Ibid.*

¹⁰⁴ First meeting held to advance work on trade and environmental sustainability. World Trade Organization. https://www.wto.org/english/news_e/news21_e/tessd_08mar21_e.htm.

¹⁰⁵ Committee on Trade and Environment, *supra* note 89, para. 1.13.

¹⁰⁶ Report (2020) of the Committee on Trade and Environment, WTO Doc. WT/CTE/27, 15 December 2020, para. 1.21.

eral Members expressed the view that “exchanging views on the trade-related aspects of environmental measures, including border carbon adjustments, should be an important part of TESSD work, given the need for improved transparency and understanding of the rising number of trade-related environmental measures adopted or planned in response to mounting environmental challenges”.¹¹⁵

In a communication subsequently submitted by Japan in the context of the TESSD, it expressed concern that “[s]ome countries and regions took carbon border adjustment mechanism against other countries and industries with insufficient measures for carbon reduction into consideration”.¹¹⁶ Japan proposed that as part of the TESSD, participating Member discuss possible actions to enhance accountability of domestic measures, including:

- a. In order to achieve global carbon neutrality, it is necessary to not re-treat measures for reducing greenhouse gas emissions.
- i. Do not encourage trade and investment by weakening or reducing the levels of greenhouse gas emission re-

duction measures

- b. Discussions on carbon border adjustment measures need to be stimulated at the WTO to avoid future trade conflicts.
- i. Discussing how carbon border adjustment measures should be formulated based on the GATT principles.¹¹⁷

Critics of the potential use of carbon border adjustment by the European Union or others point to the fact that the Paris Agreement reflect *voluntary* nationally determined contributions and that it is not for the European Union or others to judge another country’s level of ambition. They also suggest that a carbon border adjustment mechanism would not respect the UNFCCC’s principle of common but differentiated responsibilities.¹¹⁸ However, a paper by the Atlantic Council Global Energy Center suggests that the adverse impact of carbon border adjustments on developing countries should not be overstated. It notes that, in practical terms, carbon border adjustments would not significantly impact the developing countries that do not export meaningful quantities of the carbon-intensive goods that would be subject to the tax, like

¹¹⁵ Trade and Environmental Sustainability Structured Discussions, WTO Doc. INF/TE/SSD/R/1, 15 March 2021, para. 3.9.

¹¹⁶ Trade and Environmental Sustainability Structured Discussions, Communication by Japan. WTO Doc. INF/TE/SSD/W/10, 23 March 2021.

¹¹⁷ *Ibid.*

¹¹⁸ Stakeholders Assess Proposed EU Carbon Border Adjustment Mechanism. International Institute for Sustainable Development. <https://sdg.iisd.org/news/stakeholders-assess-proposed-eu-carbon-border-adjustment-mechanism/>.

steel, cement, coke (fuel), and petroleum products.¹¹⁹

It is likely that carbon border adjustments will receive increasing attention inside and outside the WTO and that the issue will continue to be contentious.

V. Conclusion

Carbon pricing is generally accepted to be an effective instrument to capture the external costs of GHG emissions and to shift the burden to those who are responsible for the emissions. A carbon price also creates incentives to reduce emissions and stimulate cleaner technologies. Two of the main policies for carbon pricing are carbon taxes and emissions trading mechanisms. A number of jurisdictions around the world have implemented carbon taxes or emissions trading mechanisms, and several more are considering implementing them.

The imposition of carbon taxes or the obligation to purchase emissions allowances under an emissions trading mecha-

nism can have an impact on the international competitiveness of the regulating Member's domestic industry, particularly where competitors in other markets are not subject to the same or equivalent policies.

Countries may be able to address these international competitiveness concerns by applying border adjustments on imports and exports. As discussed above, the WTO agreement provides some scope for the use of border adjustments on imports and exports. However, there continues to be uncertainty as to the particular circumstances in which border adjustments are WTO- consistent. This uncertainty is likely to remain for the foreseeable future until Members reach some kind of agreement on the issue or a carbon border adjustment is challenged in WTO dispute settlement. Until then, the issue is likely to remain contentious and may become even more so as the European Union goes forward with its plan to implement carbon border adjustments.

¹¹⁹ Bell and Benaim, *supra* note 26.