BORDER ADJUSTMENTS FOR CARBON TAXES, PPMS, AND THE WTO

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There is a growing consensus that carbon taxes will be an essential component of the response to climate change. Most recent carbon tax proposals provide for a domestic tax on fossil fuels at the point of extraction with border adjustments of the tax on imports and exports of products from energy-intensive sectors. The border adjustment of the tax would both protect domestic industries from unfair competition and prevent the "leakage" of emissions that would occur if production of energy-intensive goods shifted to jurisdictions without comparable carbon pricing. The prospect of new import fees and export rebates, however, has raised concerns about the potential for conflict with the rules of the World Trade Organization.

The debate has centered on whether taxes on inputs that are used in the production process, but are not incorporated in the final product, may be border adjusted. The question of whether governments may regulate imported products based on "process or production methods" ("PPMs") that do not affect the physical properties of the products has played a central role in discussions of the relationship between international trade rules and environmental measures over the last three decades. The WTO rules addressing the border adjustment of taxes, however, have a different and much older provenance. Governments have border adjusted consumption taxes for more than two centuries. The relevant WTO rules were drafted to accommodate this practice with

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regard not only to taxes on finished products but also to taxes on inputs used in the production process. Accordingly, border adjustments for carbon taxes are a WTO-consistent policy tool that can be used as part of the broader efforts to address climate change.

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1. INTRODUCTION

The accelerating climate crisis has generated growing support for carbon pricing,[1] including a statement signed by twenty-seven Nobel Laureate economists identifying carbon taxes as "the most cost-effective lever to reduce carbon emissions at the scale and speed that is necessary."[2] Most recent proposals call for a carbon tax with two central elements: a domestic tax and border tax adjustments on imports and exports.[3] The domestic tax would be levied on fossil fuels (coal, petroleum products and natural gas) at a specified rate per ton of carbon dioxide equivalent ("CO2e") "upstream" at the

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[1] *See* Intergovernmental Panel on Climate Change [IPPC], *Global Warming of 1.5 C: An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty,* at 95 (Oct. 2018) ("Policies reflecting a high price on emissions are necessary in models to achieve cost-effective 1.5°C pathways"); Int'l Energy Agency [IEA], *Energy and Climate Change: World Energy Outlook Special Report*, at 135 (2015), https://www.iea.org/ [https://perma.cc/QMA8-SGW7] ("to reach across the whole of the economy (and particularly to influence private investors) there is no substitute for correct energy pricing, including the creation of expectations of a rising trend in carbon prices."); High-Level Commission on Carbon Prices, *Report of the High-Level Commission on Carbon Prices*, at 9 (May 29, 2017), https://static1.squarespace.com/static/54ff9c5ce4b0a53decccfb4c/t/59b7f2409f8dce5316811916/1505227332748/CarbonPricing_FullReport.pdf [https://perma.cc/29Z9-JQJ7] ("[A] well-designed carbon price is an indispensable part of a strategy for reducing emissions in an effective and cost-efficient way.").

[2] George Akerlof et al., *Economists' Statement on Carbon Dividends*, WALL STREET J. (Jan. 16, 2019, 6:55 PM), https://www.wsj.com/articles/economists-statement-on-carbon-dividends-11547682910 [https://perma.cc/QUQ7-5CGZ].

[3] *See* H.R. 7173, 115th Cong. (2d Sess. 2018) (proposing a carbon fee on the use, sale or transfer of fossil fuels for an emitting use); S. 2368, 115th Cong. (2d Sess. 2018) (proposing a fee on fossil fuels produced in the United States or entering the United States for consumption or processing); H.R. 6463, 115th Cong. (2d Sess. 2018) (proposing a tax on fossil fuels produced within or imported into the United States based on their potential for emitting greenhouse gasses). *See also* Brian Flannery, Jennifer Hillman, Jan W. Mares, & Matthew Porterfield, *Framework Proposal for a US Upstream Greenhouse Gas Tax with WTO-Compliant Border Adjustments* (Resources for the Future, Working Paper Oct. 2018), https://www.rff.org/publications/working-papers/framework-proposal-for-a-us-upstream-greenhouse-gas-tax-with-wto-compliant-border-adjustments/ [https://perma.cc/85FT-97LP]; JAMES A. BAKER III ET AL., CLIMATE LEADERSHIP COUNCIL, THE CONSERVATIVE CASE FOR CARBON DIVIDENDS (2017), https://www.clcouncil.org/media/2017/03/The-Conservative-Case-for-Carbon-Dividends.pdf [https://perma.cc/6YA5-VESK].

point of extraction.[4] The tax would be border adjusted "downstream" for exports by rebating the amount of the effective tax burden that is passed through on certain products from energy-intensive, trade-exposed ("EITE") sectors. Similarly, competitive imports from EITE sectors would be subject to an equivalent fee.[5] The border adjustment of the carbon tax would address both concerns about the effects of the tax on domestic industries and the potential "leakage" of emissions that would occur if production of energy intensive goods shifted to jurisdictions without comparable carbon pricing.[6] The prospect of new import fees and export rebates, however, has raised concerns about the potential for conflict with the rules of the World Trade Organization, particularly the provisions of the General Agreement on Tariffs and Trade ("GATT") and the Agreement on Subsidies and Countervailing Measures ("ASCM").

The debate has centered on whether taxes on inputs that are used in the production process but are not physically incorporated in the final product can be border adjusted.[7] The question of

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4 *See, e.g.*, H.R. 7173, *supra* note 3, § 3 (adding Subtitle L, Chapter 101 ("Carbon Fees") to the Internal Revenue Code of 1986); S. 2368, *supra* note 3, § 101 (adding § 4691—"Fee for Carbon Dioxide Emissions"—to Chapter 38 of the Internal Revenue Code of 1986); H.R. 6463, *supra* note 3, § 101 (adding § 9901—"Imposition of Tax on Combusted Fossil Fuel Greenhouse Gas Emissions"—to the Internal Revenue Code of 1986); BAKER III ET AL., *supra* note 3, at 1 ("The first pillar of a carbon dividends plan is a gradually increasing tax on carbon dioxide emissions, to be implemented at the refinery or the first point where fossil fuels enter the economy, meaning the mine, well or port.").

5 *See* S. 2368, *supra* note 3, § 101, at 20 (adding § 4695—"Border Adjustments for Energy-Intensive Manufactured Goods" to Chapter 38 of the Internal Revenue Code of 1986); H.R. 6463, *supra* note 3, § 101, Part 2 ("Tax Adjustments for Imports and Exports of Greenhouse Gas Products"). *See also* BAKER III ET AL., *supra* note 3, at 1:

> Border adjustments for the carbon content of both imports and exports would protect American competitiveness and punish free-riding by other nations, encouraging them to adopt carbon pricing of their own. Exports to countries without comparable carbon pricing systems would receive rebates for carbon taxes paid, while imports from such countries would face fees on the carbon content of their products.

6 *See* High-Level Commission on Carbon Prices, *supra* note 1, at 41 ("Concerns over carbon leakage and unfair competition can also be tackled by improving policy coordination across countries and introducing so-called border carbon adjustments.").

7 *See generally* JAMES BACCHUS, CTR. FOR INT'L GOVERNANCE INNOVATION, THE CASE FOR A WTO CLIMATE WAIVER (Jennifer Goyder et al. eds., 2017), https://www.cigionline.org/sites/default/files/documents/NEWEST%20Climate%20Waiver%20-%20Bacchus_0.pdf [https://perma.cc/JVL2-X3M6] (noting that it

whether governments may regulate imported products based on their "process or production methods"("PPMs"), and particularly "non-product related" PPMs ("NPR-PPMs") that do not affect the physical properties of the product, has played a central role in discussions of the relationship between international trade rules and environmental measures over the last three decades.[8]

The issue has been raised primarily in the context of "like product" analysis under the national treatment provisions of Article III of the GATT. The WTO's Appellate Body has indicated that different NPR-PPMs generally do not render products "unlike" and that therefore NPR-PPM-based regulatory restrictions on imported products constitute impermissible discrimination.[9] Accordingly, it has been suggested, border tax adjustments ("BTAs") based on the carbon dioxide emissions associated with the production of internationally traded products are similarly precluded because they would result in discrimination between "like" products based on PPMs—emissions from the production process—that do not affect the physical composition or performance of the products.[10] As

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is unclear whether WTO rules permit the border adjustment of taxes based on the amount of carbon emitted in the process of producing a product).

[8] *See generally* Steve Charnovitz, *The Law of Environmental "PPMs" in the WTO: Debunking the Myth of Illegality*, 27 YALE J. INT'L L., 59, 59–64 (2002) (discussing the controversy over the status of PPM-based environmental measures under the WTO).

[9] *See* Warren H. Maruyama, *Climate Change and the WTO: Cap and Trade versus Carbon Tax?*, 45 J. WORLD TRADE, 679, 696 (2011) ("[N]either Panels nor the Appellate Body have allowed a WTO Member to impose trade restrictions on imported 'like products' that are aimed at objectionable foreign environmental practices and production methods that do not affect the product's actual physical characteristics and uses and take place outside the Member's territory."). Article XX's environmental exceptions, however, permit governments to regulate products based on different PPMs if they do so in a manner that is, *inter alia*, not unduly coercive. *See* discussion *infr*a Section 4.2.

[10] *See, e.g.*, Madison Condon & Ada Ignaciuk, *Border Carbon Adjustment and International Trade: A Literature Review* 18 (Org. for Econ. Co-operation and Dev., Trade and Env't Working Paper No. 2013/06, 2013), https://www.oecdilibrary.org [https://perma.cc/F9U6-9YHP]:

> Whether or not production processes may be taken into account to determine product likeness is crucial for [carbon tax BTA] measures. Under some proposed schemes, cement made in China using power generated by coal-fired plants would be subject to a higher tax burden, than, for example, cement produced domestically using natural gas. So, while a certain regulation on its face could seem neutral with respect to national origin, as applied it could still systematically tax imports from a particular country more heavily. While the WTO distinguishes between *de facto* and *de jure* discrimination, both are illegal unless justified.

a result of the prevalence of this view, much of the analysis of the status of carbon BTAs under the WTO has focused on the extent to which they could be justified under the environmental exceptions of Articles XX(b) and XX(g) of the GATT.[11]

Recourse to the environmental exceptions, however, is not necessary to establish the WTO-consistency of a properly designed carbon tax. The text and negotiating histories of the GATT and the ASCM indicate that internal taxes on products, including taxes imposed on inputs into products at prior stages in the production process, may be border adjusted on like imports and exports. Although there has been some dispute over whether "taxes occultes" (hidden taxes) on inputs that are not physically present in the final product may be border adjusted, that issue was largely resolved during the Uruguay Round negotiations through the inclusion of language in the ASCM that explicitly permits the border adjustment of taxes on energy and fuels used in the production process.

Section 2 of this Article traces the history of the GATT and WTO rules on BTAs, from the original provisions in GATT 1947 that accommodated the long-standing practice of border-adjusting consumption taxes on both products and their production inputs, to the clarification in the Uruguay Round negotiations that taxes on fuels and energy used in the production process are similarly border adjustable. Section 3 reviews the limited GATT and WTO jurisprudence addressing border tax adjustments. Section 4 discusses the PPM issue as it has been raised both in the context of Article III and Article XX of the GATT. Section 5 attempts to reconcile the PPM jurisprudence with the GATT and ASCM provisions on BTAs and suggests some guidelines for designing carbon BTAs to minimize the risk of trade conflict.

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11 *See, e.g.*, Michael Mehling et al., *Designing Border Carbon Adjustments for Enhanced Climate Action* 36–40 (Claudia Delpero ed., 2017), http://climatestrategies.org/wp-content/uploads/2017/12/CS_report-Dec-2017-4.pdf [https://perma.cc/KCH2-TBWX] (discussing uncertainty concerning the consistency of carbon BTAs with GATT articles II:2(a) and III:2 and potential applications of Article XX exceptions).

2. The Origins and Evolution of the WTO's Provisions on Border Tax Adjustment

2.1. Pre-GATT Practice on BTAs

The United States practice with regard to border tax adjustments dates back to the First Congress, which in 1789 enacted legislation permitting the border adjustment on exports of duties on previously imported products.[12] Several decades later, David Ricardo provided the economic rationale for border adjustment of domestic taxes on both imports and exports, arguing that a tax on a commodity affecting only domestic producers

> is, in fact, a bounty to that amount on the importation of the same commodity from abroad; and to restore competition to its just level, it would be necessary not only to subject the imported commodity to an equal tax, but to allow a drawback of equal amount, on the exportation of the home-made commodity.[13]

Consistent with Ricardo's position, commercial treaties dating back to the 19th century have permitted the border adjustment of indirect taxes.[14] The United States briefly attempted to limit BTAs

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12 *See* Gary Clyde Hufbauer, assisted by Carol Gabyzon, Fundamental Tax Reform and Border Tax Adjustments 21–22, 37 (1996) (stating that the Whiskey Act of 1791 similarly permitted the border adjustment on exports of an excise tax on alcohol).

13 *See* David Ricardo, On Protection to Agriculture 14–15 (4th ed. 1822). *See also* Alice Pirlot, Environmental Border Tax Adjustments and International Trade Law: Fostering Environmental Protection 12–16 (Kurt Deketelaere & Zen Makuch eds., 2017) (discussing Ricardo's views on BTAs and their relationship to the theory of comparative advantage).

14 *See* S. Comm. On Finance, 93d Cong., Tax Adjustments in International Trade: GATT Provisions and EEC Practices 2 (Comm. Print 1973), https://babel.hathitrust.org/cgi/pt?id=mdp.39015076086241;view=1up;seq=6. [https://perma.cc/NRM5-89V5]:

> Countries have traditionally imposed domestic consumption taxes on imports. Provisions similar to those in the GATT have been used in commercial treaties and agreements for over a hundred years and were contained in bilateral trade agreements between the United States and other countries from almost the beginning of the reciprocal trade agreements program in 1934. This concept was carried over into the GATT in 1947, as proposed by the United States and other countries, reflecting the practical view that governments and businessmen would not have

in reciprocal trade agreements in the 1930s, but abandoned the effort when it proved impractical and entered into numerous bilateral agreements that explicitly permitted the border adjustment of internal taxes on imports.[15]

2.2. *The GATT 1947 Negotiations*

The United States continued to support the border adjustment of internal taxes in the negotiations on the International Trade Organization ("ITO") and the GATT in the following decade. In February of 1946, the Economic and Social Council of the United Nations adopted a resolution constituting the "Preparatory Committee of the International Conference on Trade and Employment"[16] to negotiate a charter for an International Trade Organization. The United States circulated a "Suggested Charter for an International Trade Organization" in September of 1946, which provided the basis for the negotiations.[17]

The Suggested Charter prohibited export subsidies but explicitly permitted the border adjustment of internal taxes on exports.[18]

> accepted procedures which exempted competing imported goods from consumption taxes imposed on similar domestic goods.

15 *See id.* at n.2:

> The United States inserted provisions in three early bilateral agreements (with Brazil, Columbia and Cuba) negotiated under the 1934 Reciprocal Trade Agreements Act freezing internal taxes on imported products with respect to which tariff concessions had been granted. Practical problems emerged almost immediately, however, and the policy was abandoned in 1935. Subsequent agreements contained a provision permitting either party to apply to imports a tax equivalent to any internal tax imposed on products produced and sold domestically.

16 *See* Rep. of the First Sess. of the Preparatory Comm. of the U.N. Conf. on Trade and Emp., ¶¶ 3, 11, U.N. Doc. E/PC/T/33 (Oct. 31, 1946), https://docs.wto.org/gattdocs/q/UN/EPCT/33.PDF [https://perma.cc/8MFF-3MRA]. The United States had called for the convening of the conference in November of 1945. *See* U.S. DEP'T OF STATE, STATE DEP'T PUB. 2411, PROPOSALS FOR EXPANSION OF WORLD TRADE AND EMPLOYMENT, FOREWORD (Nov. 1945), https://fraser.stlouisfed.org/files/docs/historical/eccles/036_04_0003.pdf [https://perma.cc/3XRL-QL8Q].

17 *See* U.S. DEP'T OF STATE, STATE DEP'T PUB. 2598, SUGGESTED CHARTER FOR AN INTERNATIONAL TRADE ORGANIZATION OF THE UNITED NATIONS, (Sept. 1946), *reprinted in* Rep. of the First Session of the Preparatory Comm. of the U.N. Conf. on Trade and Emp, *supra* note 16, at 52–67 [hereinafter Suggested Charter].

18 *Id.* art. 25(2):

Similarly, the Suggested Charter contained a national treatment provision (Article 9) that permitted the border adjustment of internal taxes on imports so long as they were not imposed at a level "higher than those imposed on like products of national origin . . . ."[19] Although Article 9 did not address the border adjustability of taxes related to the production process, the issue was subsequently addressed in the negotiations. During the First Session of the Preparatory Committee in London, the United Kingdom proposed clarifying that the national treatment obligation with regard to internal taxes applied not only to taxes "imposed on" but also to taxes imposed "in connection with" like domestic products.[20] The rapporteurs of a technical subcommittee charged with preparing a revised national treatment article substituted the phrase "directly or indirectly" for "in connection with" due to concerns about an equivalent translation of the latter phrase in French.[21]

A Drafting Committee meeting in Lake Success, New York in early 1947 incorporated this language in the national treatment provision of the first draft of the GATT as a separate document from the ITO Charter.[22] Later that year, during the Second Session of the

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> [N]o Member shall grant, directly or indirectly, any subsidy on the exportation of any product, or establish or maintain any other system which results in the sale of such product for export at a price lower than the comparable price charged for the like product to buyers in the domestic market, due allowance being made for differences in conditions and terms of sale, for differences in taxation, and for other differences affecting price comparability. *The preceding sentence shall not be construed to prevent any Member from exempting exported products from duties or taxes imposed in respect of like products when consumed domestically or from remitting such duties or taxes which have accrued.*

(emphasis added).

19 *Id.* art. 9 ¶ 1 ("National Treatment on Internal Taxation and Regulation").

20 U.N. Econ. & Soc. Council, Preparatory Comm. of the Int'l Conf. on Trade and Emp., Comm. II, Observations of the U.K. Delegation on Items 2–7 of the Provisional Agenda of the Tech. Sub-Comm. on Customs Procedure at 1, U.N. Doc. E/PC/T/C.II/11 (Oct. 26, 1946), https://docs.wto.org/'=gattdocs/q/UN/EPCT/CII-11.PDF [https://perma.cc/S3EE-5HNS].

21 *See* U.N. Econ. & Soc. Council, Preparatory Comm. of the Int'l Conf. on Trade and Emp., Comm. II, Tech. Sub-Committee, 2nd mtg. at 5, U.N. Doc. E/PC/T/C.II/W.5 (Oct. 31, 1946), https://docs.wto.org/gattdocs/q/UN/EPCT/CII-W5.PDF [https://perma.cc/C79N-CPPT].

22 *See* U.N. Conf. on Trade and Emp., *Rep. of the Drafting Comm. of the Preparatory Comm.*, 66, U.N. Doc. E/PC/T/34 (Mar. 9, 1947) ("The products of the territory of any contracting party imported into the territory of any other contracting party shall be exempt from internal taxes and other internal charges of

Preparatory Committee in Geneva, the delegate from Brazil questioned whether the reference to taxes imposed "directly or indirectly" would apply to direct taxes, such as corporate income taxes, which traditionally had been treated as non-adjustable.[23] The United States delegate responded that the reference to taxes imposed "indirectly" was intended to cover "not the tax on a product as such *but on the processing of the product* . . . ."[24] The "directly or indirectly" language remained in Article III:2 of the GATT as signed in Geneva on October 30, 1947.[25]

A provision included in Article II:2 of GATT 1947 similarly reflects the understanding of the drafters that internal taxes relating to the production of a product may be border adjusted. Article II:2(a) states that Article II does not prevent contracting parties from imposing on an imported product "a charge equivalent to an internal tax imposed consistently with . . . [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* . . . ."[26] The Chairman of the Legal Drafting Committee

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any kind higher than those imposed, *directly or indirectly,* on like products of national origin.") (emphasis added). Similar language on national treatment is included in Article 15:2 of the Draft ITO charter produced by the Drafting Committee. *See id.* at 17. For a general discussion of the Drafting Committee's work, *see* DOUGLAS A. IRWIN ET AL., THE GENESIS OF THE GATT 111–114 (2008).

[23] U.N. Econ. & Soc. Council, Preparatory Comm. of the U.N. Conf. on Trade and Emp., 2nd Sess., 9th mtg. of Comm'n A in the Palais des Nations, Geneva, Verbatim Report, at 18–19, U.N. Doc. E/PC/T/A/PV/9 (June 5, 1947), http://sul-derivatives.stanford.edu/derivative?CSNID=90240083&mediaType=application/pdf [https://perma.cc/GGX5-4YBD].

[24] *Id.* at 19 (emphasis added).

[25] General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194 art. III:2 ("The products of the territory of any contracting party imported into the territory of any other contracting party shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products."). An interpretive note to Article III added in 1948 clarified that

> [a]ny 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.

Protocol Modifying Part II and Article XXVI of the Gen. Agreement on Tariffs and Trade, Sept. 14, 1948, 62 U.N.T.S. No. 814. III, at 104.

[26] GATT, *supra* note 25, art. II:2(a) (emphasis added). This language had previously been proposed by the United States as a note to be included in each

explained that this language required that adjustments based on taxes on the inputs of imported products must be made by reference to those inputs rather than the manufactured product:

> [I]f a duty is imposed on an article because a duty is imposed on part of the content of this article, then the duty should only be imposed regarding the particular content of this article. For example, if a duty is imposed on perfume because it contains alcohol, the duty to be imposed must take into consideration the value of the alcohol and not the value of the perfume; that is to say, the value of the content and not the value of the whole.[27]

There has been some debate over the relationship between GATT Articles III:2 and II:2(a) and whether they apply to the same scope of measures.[28] The text of Article II:2, however, indicates that it is simply intended to clarify that the tariff concessions referenced in Article II:1 do not prevent States from imposing certain other types of charges on imported products, including border adjustments of internal taxes (subparagraph 2(a)), "any anti-dumping or countervailing duty applied consistently with the provisions of Article VI" (subparagraph 2(b)), and "fees or other charges commensurate with the cost of services rendered"

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country's tariff schedule. *See* U.N. Econ. & Soc. Council, Drafting Comm. of the Preparatory Comm. of the U.N. Conf. on Trade and Emp., Tentative and Non-Committal Draft Suggested by the Delegation of the United States General Agreement on Tariffs and Trade, E/PC/T/C.6/W.58 (Feb. 7, 1947).

27 U.N. Econ. & Soc. Council, Preparatory Comm. of the U.N. Conf. on Trade and Emp., 2nd Sess., 26th Mtg. of the Tariff Agreement Comm. at 10:30 a.m. in the Palais des Nations, Geneva, Verbatim Report at 21, U.N. Doc. E/PC/T/TAC/PV/26 (Sept. 23, 1947), https://stacks.stanford.edu/file/yy010ry5730/90260096.pdf [https://perma.cc/RAG7-453B]. *See* GATT Secretariat, *Report by the Working Party on Border Tax Adjustments*, ¶¶ 39-44, L/3464 (Nov. 20, 1970), https://www.wto.org/gatt_docs/English/SULPDF/90840088.pdf [https://perma.cc/74BZ-F8YA] [hereinafter Working Party Report].

28 *See* PIRLOT, *supra* note 13, at 12–16 (discussing alternative interpretations of Article II:2(a) as either overlapping with Article III:2, clarifying the scope of Article II's tariff concessions, or applying to different types of BTAs).

(subparagraph 2(c)). The WTO's Secretariat[29] and several GATT panels have endorsed this interpretation.[30]

The prohibition on export subsidies proposed by the United States in the Suggested Charter[31] was not included in GATT 1947. Instead, Article XVI imposed only weak notification and consultation requirements concerning subsidies.[32] Accordingly, because it did not prohibit export subsidies, there was no need for explicit language indicating that border adjustments of indirect taxes on exports were permissible.[33] Article VI:4, however, reflected

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29 *See* Comm. on Trade and the Env't, *Note by the Secretariat: Taxes and Charges for Envt'l Purposes – Border Tax Adjustments*, ¶ 40, WTO Doc. WT/CTE/W/47 (May 2, 1997) (noting that Article II:2 permits the imposition on imports of charges equivalent to internal taxes "[n]otwithstanding the obligations set forth in the relevant provisions of Article II (Schedules of Concessions) of GATT 1994 . . .").

30 *See* Report of the Panel, *United States – Customs User Fee*, ¶ 70, L/6264 (Feb. 2, 1988) GATT B.I.S.D. (35th Supp.), at 283 (1989) ("Paragraph 1(b) of Article II establishes a general ceiling on the charges that can be levied on a product whose tariff is bound . . . Article II:2 permits governments to impose, above this ceiling, three types of non-tariff charges . . . ."). *See also* Report of the Panel, *United States – Taxes on Petroleum and Certain Imported Substances,* ¶ 5.2.7, L/61775 (June 17, 1987) GATT B.I.S.D. (34th Supp.), at 136 (1987) (Article II:2(a) "clarifies" that tariff concessions do not prevent border adjustment of taxes as provided for in Article III:2); Report of the Panel, *EEC Measures on Animal Feed Proteins*, ¶ 4.16(c), L/4599 (Mar. 14, 1978) GATT B.I.S.D. (25th Supp), at 49 (1978):

> The wording of Article II:2(a) which refers to 'charges equivalent to internal taxes' is different from that of Article III:2 which refers to 'internal taxes and other charges of any kind', but it appeared to be the common understanding of the drafters of these articles that their scope should be the same as to the kind of measures being covered . . . .

31 *See* Suggested Charter, *supra* note 17, art. 25.

32 GATT, *supra* note 25, art. XVI:1:

> If any contracting party grants or maintains any subsidy, including any form of income or price support, which operates directly or indirectly to increase exports of any product from, or to reduce imports of any product into, its territory, it shall notify the CONTRACTING PARTIES in writing of the extent and nature of the subsidization, of the estimated effect of the subsidization on the quantity of the affected product or products imported into or exported from its territory and of the circumstances making the subsidization necessary. In any case in which it is determined that serious prejudice to the interests of any other contracting party is caused or threatened by any such subsidization, the contracting party granting the subsidy shall, upon request, discuss with the other contracting party or parties concerned, or with the CONTRACTING PARTIES, the possibility of limiting the subsidization.

33 *See* S. Comm. on Finance, *supra* note 14, at 3 ("Since the original GATT allowed export subsidization, there was at that time no reason for the GATT to specifically note that the exemption or rebate on exports of consumption taxes could not be considered to be a subsidy.")

the understanding that rebates of indirect taxes on exported products did not constitute subsidies, stating that such rebates or exemptions could not be the basis for anti-dumping or countervailing duties.[34]

2.3. The 1954-1955 Review Session

During the 1954-1955 GATT Review Session, Germany proposed a new interpretive note to Article III:2 that would clarify that the reference to "internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products" included "charges at various stages of . . . production [including] charges borne by the raw materials, semi-finished products, auxiliary materials, etc. incorporated in, *and by the power consumed for the production of, the finished products*."[35] Delegates from other Contracting Parties expressed a range of views on this proposal and it was ultimately not adopted.[36]

The Review Session, however, did result in new provisions on export subsidies and BTAs based on Articles 26-28 of the Havana Charter.[37] Language was added (Section B of the current Article XVI) imposing a qualified prohibition on export subsidies on non-primary products that resulted in their sale at a lower price than the like product sold domestically. Significantly, the Contracting Parties also inserted an Ad Note to Article XVI, clarifying that "[t]he exemption of an exported product from duties or taxes borne by the like product when destined for domestic consumption, or the

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[34] GATT, *supra* note 25, art. VI:4. *See also* S. Comm. on Finance, *supra* note 14, at 3.

[35] GATT Secretariat, *Review Working Party II on Tariffs, Schedules and Customs Administration, Report to the Contracting Parties*, ¶ 10, L/329 (Feb. 24, 1955) (emphasis added), https://docs.wto.org/gattdocs/q/GG/L999/329.PDF [https://perma.cc/W642-A5BS].

[36] Despite its prominent role in the drafting of both Articles II:2 and III:2 to apply to taxes imposed on the production process, the United States argued that "internal taxes" should be interpreted to apply only to taxes on finished products. *Id.*

[37] *See* Analytical Index of the GATT: Article XVI, Subsidies, at 445, https://www.wto.org/english/res_e/publications_e/ai17_e/gatt1994_art16_gatt47.pdf [https://perma.cc/2PPL-H333]; U.N. Conf. on Trade and Emp., *Final Act and Related Documents*, 44–46, U.N. Doc. E/CONF.2/78 (Apr. 1948), https://www.wto.org/english/docs_e/legal_e/havana_e.pdf [https://perma.cc/2FVF-EKVH] (containing the final version of the Havana Charter, conference resolutions, and annexed documents).

remission of such duties or taxes in amounts not in excess of those which have accrued, shall not be deemed to be a subsidy."[38]

Although the Ad Note does not address the remission of taxes on the production of exported products, the adjustability of taxes on inputs was discussed during the negotiations on the provision of the Havana Charter on which the Ad Note was based.[39] Sweden had proposed adding language clarifying that the exemption or remission of domestic consumption taxes, whether imposed "directly or indirectly," did not constitute a subsidy. It withdrew its proposal based on an understanding that the provision permitted the remission "of duties or taxes imposed on raw materials and semi-manufactured products subsequently used in the production of exported manufactured goods."[40] During the Review Session, the Technical Group on Customs Administration similarly indicated that, as used in paragraph 3 of Article VII of the GATT ("Valuation for Customs Purposes"), the term "internal tax" referred not only to taxes "levied directly on the goods directly exported" but also to taxes levied "on the materials going into the manufacture of such goods."[41]

2.4. *The 1960 Report of the Working Party on Subsidies*

In 1960, the Working Party on Subsidies confirmed that taxes imposed at different stages of the production process could be border adjusted on exports of non-primary products. The Working Party produced a "Declaration Giving Effect to the Provisions of Article XVI:4"[42] that addressed export subsidies on non-primary

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[38] GATT, Annex A, 218, Mar. 10, 1955, 1957 U.N.T.S. 278, https://treaties.un.org/doc/Publication/UNTS/Volume%20278/v278.pdf [https://perma.cc/8VQZ-B4TB]. This language was repeated in footnote 1 of the Agreement on Subsidies and Countervailing Measures.

[39] *See* Working Party Report, *supra* note 27, ¶ 29.

[40] U.N. Conf. on Trade and Emp., *Reports of Committees and Principal Sub-Committees*, at 109, ¶ 18, ICITO/1/8 (Sept. 1948), https://www.wto.org/gatt_docs/English/SULPDF/90180096.pdf [https://perma.cc/A5JA-MQL3].

[41] GATT Secretariat Review Working Party II, *supra* note 35, ¶ 17.

[42] Contracting Parties, Working Party on Subsidies, *Report of the Working Party on Subsidies*, 4, L/1381 (Nov. 1960), https://docs.wto.org/gattdocs/q/GG/L1799/1381.PDF [https://perma.cc/HV6Q-48AE].

products.[43] In its report accompanying the Declaration, the Working Party compiled a list of practices considered to constitute impermissible export subsidies. The list excluded remissions for "indirect taxes levied *at one or several stages* on the same goods if sold for internal consumption . . . or amounts [not] exceeding those effectively levied *at one or several stages* on these goods in the form of indirect taxes."[44]

2.5. The 1970 Report of the Working Party on Border Tax Adjustments

In 1968, BTAs received even more intense scrutiny when the GATT Council established a Working Party on Border Tax Adjustments.[45] The United States had proposed creating the Working Party due to concerns that, *inter alia*, the GATT's rules on border adjustment relied on flawed economic assumptions and could provide an unfair advantage to countries that rely primarily on indirect taxes rather than direct taxes (e.g., corporate income taxes).[46]

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[43] The Declaration was eventually accepted by and went into force for 17 countries. *See id.*

[44] *Id.* at 2 (emphasis added). *See* S. Comm. on Finance, *supra* note 14, at 4–5 (discussing the history of the "Declaration Giving Effect to the Provisions of Article XVI:4").

[45] *See Council Minutes of Meeting Held at the Palais des Nations, Geneva on 27 and 28 March 1968*, 8–12, C/M/46 (Apr. 5, 1968), https://docs.wto.org/gattdocs/q/GG/C/M46.PDF [https://perma.cc/K6V5-3HJB].

[46] *See id.* at 8–9; *See also* S. Comm. on Finance, *supra* note 14, at 1:

> Some American businessmen have expressed concern that their competitive positions, both in their home market and in markets abroad, have been disadvantaged because other countries levy heavy consumption taxes on imports and grant exemptions or rebates of such taxes on their exports . . . . Although virtually all countries have a general consumption tax system with the inevitable levy on imports and rebate or exemption on exports, the complaints by our businessmen are primarily voiced in terms of tax adjustments on goods in Europe – specifically the tax-on-value added. Many of these businessmen also believe that the direct tax burden (corporate income tax) in Europe is much lighter than it is in the United States, and since the provisions of the General Agreement on Tariffs and Trade (GATT) permit tax adjustments on imports and exports for consumption taxes but not for income taxes, American producers are disadvantaged.

The Working Party issued a report that was adopted by the Contracting Parties in 1970.[47] In its report, the Working Party noted that although import BTAs were addressed under GATT Articles II and III, and export BTAs under Article XVI, "differences in wording [of the Articles] had not led to any differences in interpretation. . . . It was agreed that GATT provisions on tax adjustment applied the principle of destination identically to imports and exports."[48]

The Working Party further observed that there was broad agreement that indirect taxes on products (e.g., sales and value added taxes) were adjustable whereas direct taxes on employers and employees were not.[49] There was disagreement, however, with regard to certain "taxes occultes," including taxes on goods and services that are used in the production and distribution of, but not physically incorporated into, other taxable products.[50] As defined by the OECD in an influential 1968 report, taxes occultes include taxes on "a) auxiliary materials expended in the transportation or production of goods (e.g. energy, fuel, lubricants, packing, stationery); b) durable capital equipment goods (e.g. machinery, buildings, vehicles); [and] c) services (e.g. transport, advertising)."[51]

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47 *See Council Minutes*, *supra* note 45, at 8-9. The U.S. delegation suggested that the Working Party could propose appropriate "new obligations or understandings" with regard to BTAs. *Id.* at 9. The Working Party, however, only recommended the establishment of notification and consultation procedures for changes in border tax adjustment policies. *See also* Working Party Report, *supra* note 27, ¶¶ 39–44.

48 *See* Working Party Report, *supra* note 27, § 2 ¶ 10. *See also id.* § 2 ¶ 9 ("Most members argued that there seemed to have been a coherent approach . . . . and that there were no inconsistencies of substance between the different provisions even if the question of tax adjustments [on import and export BTAs] was dealt with in different Articles.").

49 *Id.* § 2 ¶ 14. In making this observation, however, the Working Party improperly conflated the meaning of "directly and indirectly" in GATT Article III:2 with the distinction between direct and indirect taxes. *See* Comm. on Trade and Env't, *Note by the Secretariat, Taxes and Charges for Envt'l Purposes—Border Tax Adjustment*, ¶ 68, WT/CTE/W/47 (May 2, 1997) [https://perma.cc/6EWG-QVBB] (noting that the terms "directly or indirectly" in GATT Article III:2 "do not correspond to the distinction between direct and indirect taxes . . . contrary to what is suggested in paragraph 14 of the Working Group on Border Tax Adjustment.").

50 *See* Working Party Report, *supra* note 27, § 2 ¶ 15(a) (defining tax occultes as "consumption taxes on capital equipment, auxiliary materials and services used in the transportation and production of other taxable goods").

51 Organization for Economic Co-operation and Development [OECD], *Report on Tax Adjustments Applied To Exports And Imports In OECD Member Countries*, at 20 (Nov. 1968).

These taxes were not usually treated as subject to adjustment, except when implemented in the form of a cascade tax[52]—i.e. a tax imposed on a product based on its value at each stage of the production and distribution process, including the cumulative tax burden from prior stages.[53] The Working Party concluded, however, that there was insufficient evidence of actual conflicts over the border adjustment of taxes occultes to warrant further deliberation on the subject.[54]

The Working Party further observed that even some taxes that were viewed as adjustable raised concerns because of the difficulty of determining the appropriate level of border adjustment. These taxes included cascade taxes and taxes on "composite goods" containing taxable goods. For cascade taxes, questions arose from the typical practice of making border adjustments based on the average tax burden of "categories of products rather than calculating the actual tax levied on a particular product."[55] The Working Party concluded, however, that this was an issue of decreasing concern in light of the replacement of cascade taxes by value added taxes ("VATs").[56] With regard to composite products, the members of the Working Party "agreed in principle it was administratively sensible and sufficiently accurate to rebate by average rates for a given class of goods."[57]

52 *See* Working Party Report, *supra* note 27, ¶ 15(a). The Working Party also noted that there was disagreement over the eligibility for adjustment of "certain other taxes, such as property taxes, stamp duties and registration duties . . . ." *Id.* ¶15(b).

53 *Id.* §2 ¶16.

54 *Id.* §2 ¶15.

55 *Id.* §2 ¶16. *See also* PIRLOT, *supra* note 13, at 194 ("[C]umulative indirect taxes have traditionally been considered eligible for BTAs despite the impossibility of guaranteeing a perfect equivalence between these taxes and their BTAs. Equivalence between taxes does not need (and cannot) be established with absolute certainty. Averaging has been an option for cumulative tax systems . . . ").

56 *See* Working Party Report, *supra* note 27, § 1 ¶ 16. *See also* J. ANDREW HOERNER & FRANK MULLER, CARBON TAXES FOR CLIMATE PROTECTION IN A COMPETITIVE WORLD 33 (1996), http://rprogress.org/publications/1996/swiss_1996.pdf [https://perma.cc/3GCQ-XMJU] ("By the European Commission VAT directive all European cascade taxes were replaced by VATs no later than 1970, later postponed to 1972.").

57 *See* Working Party Report, *supra* note 27, ¶ 16.

2.6. The 1979 Subsidies Code

The Tokyo Round negotiations led to the adoption of the 1979 Subsidies Code,[58] which included both a broader prohibition on export subsidies for non-primary products and an Annex containing an illustrative list of export subsidies that excluded rebates of indirect taxes on production inputs.[59] Paragraph (g) of the Annex indicated that the "exemption or remission *in respect of the production and distribution* of exported products, of indirect taxes" does not constitute an export subsidy unless it is "in excess of those levied in respect of the production and distribution of like products when sold for domestic consumption."[60] The reference to taxes on the "distribution" of exported products—a service that is not physically incorporated in the product—indicates that the disagreement in the Working Party[61] has been resolved in favor of treating taxes occultes as border adjustable. Similarly, the term "indirect taxes" was defined to include not only consumption taxes (sales, excise, turnover, and value added taxes) but also taxes not based on the product itself (franchise, stamp, transfer, and equipment taxes) and "all taxes other than direct taxes and import charges."[62] Accordingly, any tax that was not an import charge or within the narrow definition of "direct tax" ("taxes on wages, profits, interests, rents, royalties, and all other forms of income, and taxes on the ownership of real property") was treated as a presumptively adjustable indirect tax.

Paragraph (h), however, imposed certain limits on the remission of taxes occultes when implemented in the form of cascade taxes, referred to in the Subsidies Code as "prior stage cumulative indirect" ("PSCI") taxes.[63] "Prior stage" taxes were defined in the Annex as "those levied on goods or services used directly or

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[58] *See* Agreement on Interpretation and Application of Articles VI, XVI and XXIII of the General Agreement on Tariffs and Trade, Apr. 12, 1979, LT/TR/A/3 [hereinafter 1979 Subsidies Code], https://www.wto.org/English/docs_e/legal_e/tokyo_scm_e.pdf [https://perma.cc/WN5Y-6DQW].

[59] *See id.* art. 9 and Annex. Unlike Article XVI:4 of GATT, the prohibition on export subsidies under Article 9 did not require any showing that the subsidy resulted in exported goods being sold for a lower price than the like product sold domestically.

[60] *Id.* Annex ¶ (g).

[61] *See* Working Party Report, *supra* note 27.

[62] *See* 1979 Subsidies Code, *supra* note 58, Annex note 1.

[63] *Id.* Annex ¶ (h).

indirectly in making the product," and cumulative taxes as "multi-staged taxes levied where there is no mechanism for subsequent crediting of the tax if the goods *or services* subject to tax at one stage of production are used in a succeeding stage of production."[64] Although the reference in both definitions to taxes on "services" used on the production process implies that PSCI taxes can include taxes occultes, paragraph (h) prohibited the border adjustment of PSCI taxes *except* for those "levied on goods that are physically incorporated (making normal allowance for waste) in the exported product."[65] Paragraph (i) similarly prohibited the border adjustment on exports of import charges on goods that are used in the production of exported goods unless they are "physically incorporated" in the exported product.[66]

The limitation of export border adjustments for PSCI taxes to those imposed on physically incorporated inputs, however, was not absolute. The references to "allowance for waste" in paragraphs (h) and (i)[67] suggest that the requirement of physical incorporation was not so strict that it precluded border adjustment of PSCI taxes on inputs that, while used in the production process, were not literally "physically incorporated" in the final product. Moreover, the term "normal" indicates that, consistent with the 1970s Working Party's endorsement of border adjustments based on the average tax burden for a category of products,[68] the quantity of taxable inputs lost to waste could be estimated based on standard production practices. The Parties to the 1979 Subsidies Code subsequently further clarified that "an input need not be present in the final product in the same form in which it entered the production process" in order to be considered physically incorporated.[69]

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[64] *Id.* Annex note 1.

[65] *Id.* Annex ¶ (h); *see also id.* Annex note 3 ("Paragraph (h) does not apply to value-added tax systems and border-tax adjustment in lieu thereof; the problem of the excessive remission of value-added taxes is exclusively covered by paragraph (g).").

[66] *Id.* Annex ¶ (i).

[67] *Id.* Annex ¶¶ (h), (i).

[68] *See id.* Annex ¶ (i) (including in the list of export subsidies, "[t]he remission or drawback of import charges in excess of those levied on imported goods that are physically incorporated (making *normal allowance for waste*) in the exported product") (emphasis added).

[69] Comm. on Subsidies and Countervailing Measures, *Guidelines on Physical Incorporation*, ¶ 3, GATT Doc. SCM/68 (Oct. 31, 1985), https://docs.wto.org/gattdocs/q/TR/SCM/68.pdf [https://perma.cc/B2HV-CBQM].

Border adjustments for PSCI taxes were subject to relatively more restrictive treatment than the other indirect taxes covered under paragraph (g) out of concern that they were more prone to abuse due to the difficulty of confirming the amount of taxes paid at different stages in the production process.[70] That difficulty would be compounded with rebates of taxes occultes, whereas taxes on physically incorporated inputs into products would be relatively easier to verify.[71] Significantly, however, no comparable language in paragraph (g) precluded the border adjustment of taxes on other (non-PSCI) forms of indirect taxes on goods or services used in the production process that were *not* physically incorporated into the final exported product. The 1979 Subsidies Code, therefore, implicitly acknowledged that non-PSCI indirect taxes on unincorporated production inputs could be rebated on exported products.

2.7. The ASCM

The differential treatment of BTAs on unincorporated inputs depending on the form of the indirect tax became a subject of debate during the subsidy negotiations in the Uruguay Round.[72] India argued that precluding the border adjustment of PSCI taxes on unincorporated inputs "places at a disadvantage countries with multi-stage cumulative tax systems vis-à-vis those with value-added tax systems [covered under paragraph (g)] as in the latter, there is no impediment to the exporter collecting full credit for all

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70 *See* HOERNER & MULLER, *supra* note 56, at 32:

> The purpose of forbidding PSCI taxes is to prevent nations from subsidizing their exports through excessive tax rebates or credits. PSCI taxes are believed to be especially prone to this abuse because it is often difficult for a company or the government to know precisely how much tax was paid over the various stages of production. This policy explains the major exception to the PSCI tax ban [in the 1979 Subsidies Code]: goods physically incorporated into the exported good. These incorporated goods are exempted because it is usually possible to determine how much of the taxed good is present in the final product.

71 *Id.*

72 *See* Comm. on Trade and Env't, *Negotiating History of Footnote 61 of the Agreement on Subsidies and Countervailing Measures*, WTO Doc. WT/CTE/W/16, ¶ 6 (Dec. 1, 1995) [https://perma.cc/QFH2-9WH3].

prior stage taxes paid on inputs."[73] Switzerland supported the border adjustability of indirect taxes on unincorporated inputs, including "charges on services, such as transportation and communication, as well as on machinery, and on fungible inputs *such as fuel and electricity used in the manufacturing process* . . . . "[74]

The proposal to permit border adjustment of taxes on unincorporated inputs of both cumulative (PSCI) and non-cumulative taxes was adopted in 1991 and incorporated in the text of the ASCM.[75] The revision took the form of an amendment to paragraph (h) replacing the phrase "goods that are physically incorporated . . . in the exported product" as defining the subject of charges that could be border adjusted with "inputs that are

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[73] Negotiating Grp. on Subsidies and Countervailing Duties, *Elements of the Framework for Negotiations: Submission by India*, GATT Doc. MTN.GNG/NG10/W/33, ¶ 4 (Nov. 30, 1989) [https://perma.cc/9J45-LW32]. *See also* Negotiating Group on Subsidies and Countervailing Measures, *Communication from India*, GATT Doc. MTN.GNG/NG10/W/16, at 4 (Feb. 1, 1988), https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=164179&CurrentCatalogueIdIndex=0&FullTextHash=371857150&HasEnglishRecord=True&HasFrenchRecord=True&HasSpanishRecord=True [https://perma.cc/9CTQ-AB9H]. India had raised the issue earlier, proposing that

> rebate of prior stage cumulative indirect taxes should not be treated as a countervailable subsidy whether or not such taxes have been levied on goods and services physically incorporated in the exported product. Article VI of GATT states that no product can be subject to countervailing duty by reason of the exemption of such product from taxes or duties borne by the like products when destined for consumption in the country of origin. This provision clearly suggests that rebate of taxes on auxiliary material (e.g., energy, fuel, lubricants, packing, stationary), durable capital goods (e.g., machinery buildings, vehicles) and services (e.g. transport, advertising) cannot be treated as countervailable subsidies.

[74] Negotiating Grp. on Subsidies and Countervailing Measures, *Elements of the Negotiating Framework Communication from Switzerland*, GATT Doc. MTN.GNG/NG10/W/26, at 15 (Sept. 13, 1989) (emphasis added), https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=164190&CurrentCatalogueIdIndex=0&FullTextHash=371857150&HasEnglishRecord=True&HasFrenchRecord=True&HasSpanishRecord=True [https://perma.cc/38GL-B8RT].

[75] *See* Comm. on Trade and Env't *supra* note 72, ¶ 3–4. The ASCM retained the 1979 Subsidy Code's definition of adjustable indirect taxes. *Compare Agreement on Subsidies and Countervailing Measures*, Apr. 15, 1994, 1869 U.N.T.S. 14, Annex I note 58, https://www.wto.org/english/docs_e/legal_e/24-scm.pdf [https://perma.cc/S4PB-N3CM], *with 1979 Subsidies Code*, *supra* note 58, Annex note 1 (both defining "indirect taxes" as "sales, excise, turnover, value added, franchise, stamp, transfer, inventory and equipment taxes, border taxes and all taxes other than direct taxes and import charges.").

consumed in the production of the exported product."[76] Annex II of the ASCM provides "Guidelines on Consumption of Inputs in the Production Process."[77] Footnote 61, appended to the Annex, 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*."[78] The ASCM thus explicitly permits the border adjustment on exports of energy and fuels that are consumed during the productions process.

3. GATT AND WTO JURISPRUDENCE RELEVANT TO BTAS

The limited GATT and WTO case law addressing BTAs provides further support for the adjustability of taxes on unincorporated inputs**.** In the *Superfund* dispute,[79] Canada and the European Economic Community (EEC) challenged a U.S. tax on certain imported substances that were manufactured using feedstock chemicals that would have been taxed if sold in the United States.[80] The panel accepted the United States' argument that the import tax was a BTA of the domestic tax on feedstock chemicals and therefore was permitted under GATT Articles II:2(a) and III:2.[81] Some of the volatile feedstock chemicals subject to the border tax adjustment

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[76] *ASCM*, *supra* note 75, Annex II § I ¶ 1. *See also 1979 Subsidies Code*, *supra* note 58, Annex ¶ (i) (referring to "inputs that are consumed in the production process of the exported product").

[77] *ASCM*, *supra* note 75, Annex II; *see also id.* Annex III § I (reflecting the revision in Annex II § I by referring to "inputs which are consumed in the production process . . . .").

[78] *ASCM*, *supra* note 75, Annex II note 61 (emphasis added).

[79] Report of the Panel, *United States – Taxes on Petroleum and Certain Imported Substances*, WTO Doc. L/6175 – 34S/136 (June 17, 1987) [hereinafter *Taxes on Petroleum*], https://www.wto.org/english/tratop_e/dispu_e/gatt_e/87superf.pdf [https://perma.cc/24BL-L88S].

[80] *See id.* ¶¶ 1.1, 2.1, 2.3–2.5.

[81] *See id.* ¶5.2.8 (concluding that "to the extent that the tax on certain imported substances was equivalent to the tax borne by like domestic substances as a result of the tax on certain chemicals the tax met the national treatment requirement of Article III:2, first sentence."). *See also* Report of the Panel, *Japan – Customs Duties, Taxes and Labelling Practices on Imported Wines and Alcoholic Beverages*, L/6216–34S/83, §5.8 (Nov. 10, 1987), https://www.wto.org/english/tratop_e/dispu_e/gatt_e/87beverg.pdf [https://perma.cc/GS5W-SR29] (noting that the reference to taxes imposed "indirectly" under Article III:2 encompasses taxes on "raw materials used in the product during the various stages of its production").

were converted to "stable and non-reacting substances"[82] during the production of the relevant imported products, indicating that there is no requirement that inputs that are subject to the border-adjusted tax be physically present in the same form in the final product.[83]

Significantly, the panel rejected the assertion by the EEC and Canada that the BTA on certain feedstock chemicals was inconsistent with GATT because "the pollution created in the production of the imported substances did not occur in the United States."[84] The panel responded that

> the tax adjustment rules of the [GATT] distinguish between taxes on products and taxes not directly levied on products they do not distinguish between taxes with different policy purposes. 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.[85]

The *Superfund* panel also provided guidance on the appropriate approach to assessing BTAs on the inputs of imported products. The law stipulated that the BTA would be set at the same level that would have applied if the taxable inputs had been sold in the United States.[86] The amount of the tax would be determined based on information provided by the importer.[87] If the importer failed to present sufficient information on the amount of the taxable

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[82] *See Taxes on Petroleum, supra* note 79, ¶ 3.2.11.

[83] *See* Hoerner & Muller, *supra* note 56, at 35 ("[N]othing in the [Superfund] Panel's reasoning depended on the physical incorporation. Thus, this standard should also apply to feedstock chemicals used in manufacture and not physically incorporated . . . including taxes on energy or carbon and taxes occultes more generally."). *See also* Comm. on Trade and Env't, *Note by the Secretariat*: *Taxes and Charges for Environmental Purposes—Border Tax Adjustment*, WTO Doc. WT/CTE/W/47, ¶ 70 (May 2, 1997), https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=6608&CurrentCatalogueIdIndex=0&FullTextHash=&HasEnglishRecord=True&HasFrenchRecord=True&HasSpanishRecord=True [https://perma.cc/9EKV-3ULK] ("[I]t is not clear . . . whether those [taxable] substances were still physically present in the final product, or whether they had been exhausted in the production process, and the [Superfund] panel made no distinction to that effect.").

[84] *Taxes on Petroleum*, *supra* note 79, ¶ 3.2.7.

[85] *Id.* ¶ 5.2.4.

[86] *See id.* ¶ 2.5.

[87] *See id.* ¶ 2.6.

chemicals used in manufacturing the imported substances, a 5% ad valorem tax would be imposed, unless the Secretary of Treasury issued regulations providing for the tax to be assessed based on the amount of the taxable chemical inputs that would be consumed using the "predominant method of production."[88]

The panel indicated that the 5% ad valorem approach would violate Article III:2 if it exceeded the tax that would be imposed on the equivalent amount of the chemical inputs under the internal tax.[89] However, if the importer failed to provide adequate information about the consumption of taxable feedstock chemicals in the production process, the assessment of the BTA based on the predominant method of production would be consistent with Article III:2.[90]

Although *Superfund* indicates that the *amount* of taxable inputs into an imported product may be averaged for purposes of calculating BTAs, the Appellate Body's report in *India—Additional Duties*[91] clarifies that the tax *rates* imposed under internal taxes may not be averaged if averaging would result in BTAs in excess of the level imposed on like domestic products. The dispute involved a challenge by the United States to two border charges imposed by India on alcoholic beverages and certain other products, which the United States argued violated India's tariff comments under Article II.[92] India characterized the charges as border adjustments of various internal taxes imposed on domestic products, including excise duties, sales taxes, VATs, and other local taxes.[93] The Appellate Body held, however, that the averaging of internal taxes

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88 *Id.*

89 *See Taxes on Petroleum*, *supra* note 79, ¶ 5.2.9.

90 *See Taxes on Petroleum*, *supra* note 79, ¶¶ 5.2.9–5.2.10. This is consistent with the position taken by the 1970 Working Party on the use of averages in calculating BTAs for composite goods. *See* Working Party Report, *supra* note 27, § 2:

> [C]ountries operating cascade systems usually resorted to calculating average rates of rebate for categories of products . . . Other examples included composite goods, which, on export, contained ingredients for which the Working Party agreed in principle it was administratively sensible and sufficiently accurate to rebate by average rates for a given class of goods.

91 Appellate Body Report, *India—Additional and Extra-Additional Duties on Imports from the United States*, WTO Doc. WT/DS360/AB/R (Oct. 30, 2008), https://www.wto.org/english/tratop_e/dispu_e/360abr_e.pdf [https://perma.cc/JVN5-B3XV].

92 *See id.* ¶¶ 1–3.

93 *See id.* ¶ 4.

for purposes of assessing BTAs was not consistent with Article II:2(a) to the extent that it resulted in BTAs on imported products that exceeded the corresponding internal charges on like domestic products.[94]

4. THE PPM DEBATE

In contrast to the long history of negotiations addressing border tax adjustments and the resulting language in the GATT and the ASCM, the PPM debate has emerged largely from GATT and WTO jurisprudence. The debate over PPMs reflects broad concerns about the appropriateness of importing nations using border restrictions to achieve extraterritorial regulatory objectives, and, correspondingly, the sovereign interests of exporting nations in controlling regulatory standards within their borders.[95] As discussed below, although these concerns appear to have arisen independent of any particular treaty text, the PPM issue has come to be primarily associated with the question of whether products are "like" for purposes of Article III:4 of GATT[96] and whether PPM-based border measures are consistent with the chapeau (introductory paragraph) of Article XX.[97]

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[94] *See id.* ¶¶ 208–221.

[95] *See* Robert Howse & Donald Regan, *The Product/Process Distinction—An Illusory Basis for Disciplining 'Unilateralism" in Trade Policy*, 11 EUR. J. INT'L L. 249, 274–76 (2000) (discussing objections to PPM-based measures as inappropriate attempts to exert extraterritorial influence over the regulatory policies of other countries).

[96] *See* Joel P. Trachtman, *WTO Trade and Environment Jurisprudence: Avoiding Environmental Catastrophe*, 58 HARV. INT'L L. J. 273, 281 (2017):

> The legal issue relating to PPMs is whether GATT/WTO law authorizes WTO members to maintain regulatory distinctions based on PPMs of imported products. In particular, the debate has focused on whether products that comply with specified PPM criteria and those that do not are "like" for the purpose of the national treatment obligations of Article III.

See also AMBER ROSE MAGGIO, ENVIRONMENTAL POLICY, NON-PRODUCT RELATED PROCESS AND PRODUCTION METHODS AND THE LAW OF THE WORLD TRADE ORGANIZATION 85–86 (2017) (discussing relevance of NPR PPMs to "like product" analysis).

[97] *See* Charnovitz *supra* note 8, at 92–102 (discussing status of PPM-based measures under Article XX of GATT).

4.1. Tuna-Dolphin I & II

The focus on the NPR-PPM issue as an obstacle to environmental trade measures can be largely traced to the unadopted reports of the GATT panels in the first round of the *Tuna-Dolphin* disputes in the early 1990s. In *Tuna-Dolphin I*, Mexico challenged U.S. prohibitions on the import of tuna from countries that did not adopt a regulatory system that was comparable to the United States program for preventing incidental harm to dolphins and other marine mammals from fishing, or from intermediary countries that imported tuna from countries subject to the primary ban.[98] Mexico argued that the import bans constituted quantitative restrictions in violation of Article XI of GATT.[99] Moreover, domestic and imported tuna were "like products" and it was not permissible under Article III of GATT to distinguish between them based on their production processes.[100] The United States countered that the ban on imported products was simply an enforcement of the domestic restrictions on harvesting tuna, as permitted under Article III:4 and the Note Ad Article III, and therefore not covered under Article XI.[101]

The panel sided with Mexico, although it did not explicitly frame its analysis in terms of the "like product" issue.[102] The panel instead indicated that regulations addressing the process for harvesting tuna "could not be regarded as being applied to tuna products as such because they would not directly regulate the sale of tuna and *could not possibly affect tuna as a product*."[103] Accordingly, the panel concluded, the import prohibitions did not qualify as "internal

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98 *See* Report of the Panel, *United States – Restrictions on Imports of Tuna*, WTO Doc. DS21/R - 39S/155, ¶¶ 2.1–2.9, 5.1–5.5 (Sept. 3, 1991) [Hereinafter Report on *Tuna-Dolphin I*], https://www.wto.org/english/tratop_e/dispu_e/gatt_e/91tuna.pdf [https://perma.cc/8U6V-P5RE].

99 *Id.* ¶¶ 3.1–3.2, 3.10.

100 *Id.* ¶ 3.16.

101 *Id.* ¶¶ 3.6–3.7, 5.8. The Note Ad Article III states that any internal tax or regulation that applies to both domestic and imported "like" products and is enforced with regard to the imported product at the time of importation shall be treated as an internal tax or regulation subject to Article III. *See GATT*, *supra* note 25, Annex I, Ad Article III.

102 *See Howse & Regan*, *supra* note 95, at 254 ("The *Tuna/Dolphin I* panel's argument is by no means clear, since the panel introduces without definition the notion of measures 'affecting products as such' and the notion of how a measure affects a product 'as a product' . . . [t]he panel does not focus on the issue of 'like' products . . . .").

103 *See* Report on *Tuna-Dolphin I supra* note 98, ¶ 5.14 (emphasis added).

regulations" covered under Article III:4 and the Note ad Article III, and instead were prohibited quantitative restrictions under Article XI.[104]

The panel similarly stressed that the embargoes were based on the production process rather than the product itself in rejecting the United States' assertion that the measures were permissible under the environmental exceptions in Article XX of GATT.[105] Article XX(b) applies to measures "necessary to protect human, animal or plant life or health" and Article XX(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 panel cautioned that if the exceptions could be applied to measures based on production processes outside the jurisdiction of the country, "each contracting party could unilaterally determine the conservation policies from which other contracting parties could not deviate without jeopardizing their rights under the [GATT]."[106]

Three years later another GATT panel reached similar conclusions regarding the tuna embargoes in a dispute brought by intermediary countries (the Netherlands and the European Economic Community).[107] In *Tuna-Dolphin II*, the panel found that Article III and the Note ad Article III did not cover the embargoes on tuna because they were based on the harvesting methods for the tuna and "none of these practices, policies and methods could have any impact on the inherent character of tuna as a product."[108] Accordingly, the panel concluded—like the panel in *Tuna-Dolphin I*—that the embargoes were quantitative restrictions covered by and inconsistent with Article XI:1.[109]

The panel, however, took a different approach in rejecting the application of the Article XX exceptions, stressing the coercive nature of the embargoes rather than their extraterritorial reach. On the latter issue, the panel indicated that there was "no valid reason supporting the conclusion that the provisions of Article XX(g) apply

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104 *Id.*, ¶¶ 5.14, 5.17–18, and 5.35 – 36.

105 *Id.*, ¶¶ 5.23–34.

106 *Id.*, ¶¶ 3.40, 5.23, 5.32.

107 Report of the Panel, *United States - Restrictions on Imports of Tuna*, WTO Doc. DS29/R (June 16, 1994), [Hereinafter Report on *Tuna-Dolphin II]* *https*://www.wto.org/english/tratop_e/dispu_e/gatt_e/92tuna.pdf [https://perma.cc/5QQQ-MCAL].

108 *Id.* ¶ 5.9.

109 *Id.* ¶ 5.10.

only to policies related to the conservation of exhaustible natural resources located within the territory of the contracting party invoking the provision."[110] The panel reached a similar conclusion with regard to Article XX(b).[111] The panel found, however, that the tuna embargoes were outside the scope of both Article XX(b) and XX(g) because they were intended to coerce other countries to change their conservation policies, which the panel viewed as fundamentally inconsistent with the GATT's role as a multilateral framework for guaranteeing market access to the contracting parties.[112]

The focus of the panels in *Tuna Dolphin I* and *Tuna Dolphin II* on the lack of effect of the production process on the tuna "as a product" has been widely interpreted as indicating that different NPR-PPMs do not make products "unlike" for purposes of Article III of the GATT. The approach currently taken by the Appellate Body in assessing likeness, however, is arguably at least somewhat more accommodating of PPM-based regulatory distinctions. Although the Appellate Body has noted that the assessment of likeness under Article III is ultimately "a determination about the nature and extent of a competitive relationship between and among the products,"[113] it may consider a number of factors—including consumer preferences—in making that assessment.[114]

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110 *Id.* ¶ 5.20.

111 *Id.* ¶¶ 5.30–33.

112 *Id.* ¶¶ 5.23–27, 5.36–39.

113 Appellate Body Report, *Philippines—Taxes on Distilled Spirits*, ¶ 119, WTO Doc. WT/DS396/AB/R, WT/DS403/AB/R (adopted Dec. 21, 2011) [hereinafter *Philippines—Distilled Spirits*], https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx?Query=(@Symbol=%20wt/ds403/ab/r*%20not%20rw*)&Language=ENGLISH&Context=FomerScriptedSearch&languageUIChanged=true# [https://perma.cc/93Q2-E6HS]. In Appellate Body Report, *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products*, WTO Doc. WT/DS135/AB/R (adopted Mar. 12, 2001) [hereinafter *EC-Asbestos*], https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx?Query=(@Symbol=%20wt/ds135/ab/r*%20not%20rw*)&Language=ENGLISH&Context=FomerScriptedSearch&languageUIChanged=true# [https://perma.cc/LCB4-KGZM], the Appellate Body suggested that the standard for likeness was narrower under Article III:2 than Article III:4 (¶¶ 93–6), and that the likeness inquiry under the latter provision should focus on the existence of a competitive relationship between the products (¶ 99). In *Philippines—Distilled Spirits*, however, the Appellate Body indicated that the likeness analysis under Article III:2 should similarly focus on the products' competitive relationship.

114 The relevant factors include "the product's end-uses in a given market; consumers' tastes and habits, which change from country to country; the product's

Under this approach, the NPR-PPM of an imported product is generally an insufficient basis to deem it to be non-like a competitive domestic product and therefore subject to less favorable regulatory treatment. At least in theory, however, NPR-PPMs could support a finding of non-likeness if they had a sufficient impact on consumer preferences with regard to otherwise competitive imported and domestic products.[115]

4.2. Shrimp-Turtle I & II

The Appellate Body has been even more accommodating of NPR-PPMs under Article XX, rejecting the *Tuna-Dolphin II* panel's suggestion that any border measures contingent on the production processes of an exporting country are fundamentally incompatible with Article XX. In its reports in the *Shrimp-Turtle* dispute, the Appellate Body established a more nuanced approach that focuses on two factors in assessing the consistency of PPM-based border measures with Article XX: (1) whether they are contingent on the actions of governments or private market actors, and (2) whether they require adoption of particular production processes or merely achievement of certain standards of protection.[116]

The *Shrimp-Turtle* dispute involved a challenge by India, Malaysia, Pakistan, and Thailand to a U.S. ban on the importation of shrimp from countries that did not require the use of "turtle excluder devices" ("TEDs") to prevent sea turtles from being killed

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properties, nature[,] and quality . . . [and the product's] tariff classification . . . ." *Philippines – Distilled Spirits*, *supra* note 113, ¶ 118 n.210.

115 *See* Trachtman, *supra* note 96, at 281:

> The implication of the competition-based approach to "likeness" is that, unless consumers distinguish between products on the basis of the PPM, differences in PPMs are unlikely to render products "un-like." For example, in the case of carbon regulation, unless consumers distinguish between products on the basis of the amount of carbon used in their manufacture, high carbon-intensity and low carbon-intensity products would be treated as like products.

See also Robert Howse, *The Appellate Body Rulings in the* Shrimp/Turtle *Case: A New Legal Baseline for the Trade and Environment Debate*, 27 COLUM. J. ENVTL. L. 489, 513 (2002) ("For Article III:4 purposes, no particular physical characteristic is dispositive, in the abstract, of whether a product is 'like' or unlike. Other factors, such as consumer preferences, must be considered in forming a judgment based on the criteria that the Appellate Body approved . . . .").

116 *See infra* notes 122–143 and accompanying text.

in the nets of shrimp boats.[117] The panel found that the import ban constituted an impermissible quantitative restriction under Article XI of the GATT that was not justified under Article XX(b) or (g), citing *Tuna-Dolphin II* in support of its conclusion that permitting one country to restrict market access in order to coerce another country to adopt certain policies would threaten the multilateral trading system.[118]

On appeal, the Appellate Body noted that assessment of a measure under Article XX requires a "two-tiered" analysis.[119] First, the measure must be "provisionally justified" in that it is within one of the specific exceptions provided for in paragraphs (a) through (j) of Article XX.[120] Second, the measure must comply with the chapeau of Article XX, which states that measures must not be "applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade . . . ."[121]

The Appellate Body found that the import ban was provisionally justified under Article XX(g) and reversed the panel's finding that the measure was a priori excluded from Article XX because it made access to the U.S. shrimp market contingent on the adoption of certain policies designed to protect sea turtles.[122] The Appellate Body observed in paragraph 121 of its report that the test applied by the panel had no basis in the text of Article XX, and noted further that

> conditioning access to a Member's domestic market on whether exporting Members comply with, or adopt, a policy

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[117] *See* Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, ¶¶ 1–5, WTO Doc. WT/DS58/AB/R (adopted Oct. 12, 1998) [hereinafter *Shrimp-Turtle I AB Report*], https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx?Query=(@Symbol=%20wt/ds58/ab/r*%20not%20rw*)&Language=ENGLISH&Context=FomerScriptedSearch&languageUIChanged=true# [https://perma.cc/6VKB-VQHR].

[118] *See* Report of the Panel, *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, ¶¶ 7.43–46, WTO Doc. WT/DS58/R (adopted May 15, 1998), https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx?Query=(@Symbol=%20wt/ds58/r*%20not%20rw*)&Language=ENGLISH&Context=FomerScriptedSearch&languageUIChanged=true# [https://perma.cc/RPF7-FC99].

[119] *See Shrimp-Turtle I AB Report*, *supra* note 117, ¶ 118 (quoting Appellate Body Report, *United States—Standards for Reformulated and Conventional Gasoline*, WTO Doc. WT/DS2/AB/R (adopted Apr. 29, 1996), at 22).

[120] *See Shrimp-Turtle I AB Report*, *supra* note 117, ¶ 125.

[121] *See* GATT, *supra* note 25, art. XX.

[122] *See Shrimp-Turtle I AB Report*, *supra* note 117, ¶¶ 112–22.

> or policies unilaterally prescribed by the importing Member may, to some degree, be a common aspect of measures falling with the scope . . . of Article XX. . . . It is not necessary to assume that requiring from exporting countries compliance with, or adoption of, certain policies . . . prescribed by the importing country, renders a measure *a priori* incapable of justification under Article XX. Such an interpretation renders most, if not all, of the specific exceptions of Article XX inutile, a result abhorrent to the principles of interpretation we are bound to apply.[123]

Yet despite rejecting the panel's suggestion that a WTO Member may not condition market access on another Member's adoption of certain policies, the Appellate Body concluded that the turtle protection measure had been implemented in a manner that constituted "unjustifiable discrimination" under the chapeau of Article XX.[124]

"Perhaps the most conspicuous flaw in this measure's application," the Appellate Body stated, was "its intended and actual coercive effect on the specific policy decisions made by foreign governments," which effectively required all other WTO Members attempting to export shrimp to the United States "to adopt *essentially the same* policy . . . as that applied to, and enforced on, United States domestic shrimp trawlers."[125] This coercive approach precluded even imports of shrimp harvested using TEDs if those shrimp were harvested in the waters of countries that had not been certified as requiring the use of TEDs.[126] The Appellate Body indicated that the focus on the adoption of the particular regulatory approach rather than allowing for "flexibility" in achieving the policy goal of protecting sea turtles resulted in unjustified discrimination because it did not "allow for any inquiry into the appropriateness of the regulatory program for the conditions prevailing in . . . exporting countries."[127]

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123 *Id.* ¶ 121.

124 *Id.* ¶¶ 161-176.

125 *Id.* ¶ 161.

126 *Id.* ¶ 165.

127 *Id.* The Appellate Body also found the application of the import ban to constitute unjustifiable discrimination under the chapeau because the United States had failed to attempt to negotiate an approach to the conservation of sea turtles with all affected countries (¶¶ 166–72) and had provided some countries with longer periods for implementing the required use of TEDs (¶¶ 173–4) and greater access to relevant technology (¶ 175). The Appellate Body further concluded that

The apparent tension between the Appellate Body's statements on PPM-based measures in *Shrimp-Turtle I* was clarified in the subsequent compliance proceeding. The United States issued revised guidelines implementing the import ban, which permitted shrimp to be imported not only from countries that required the use of TEDs on shrimp trawlers, but also from countries with policies for protecting sea turtles that were "comparably effective" to the use of TEDs.[128]

Before the panel in the compliance proceeding, Malaysia argued that the revised guidelines continued to violate Article XI and were not justified under Article XX(g).[129] The panel agreed that the revised guidelines violated Article XI but found that they were sufficiently flexible and non-coercive to be justified under Article XX(g).[130] The panel noted that the revised guidelines permitted not only the importation of shrimp from countries certified as having implemented a program for protecting sea turtles that achieved a comparable level of protection to the mandatory use of TEDs,[131] but also shrimp caught with TEDs from countries that were not certified.[132]

The Appellate Body upheld the panel's finding that the revised guidelines, by permitting certification of countries with sea turtle protection programs that were "comparable in effectiveness" to the U.S. policies, were sufficiently flexible to avoid constituting arbitrary or unjustifiable discrimination under the chapeau of

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the ban had been applied in a manner that constituted impermissible "arbitrary discrimination" under the chapeau, due to its inflexible implementation (¶ 177) and the lack of "basic fairness and due process" in the process for certifying countries as complying with the turtle protection standards (¶ 181).

128 *See* Report of Panel, *United States – Import Prohibition of Certain Shrimp and Shrimp Products, Recourse to Article 21.5 by Malaysia*, ¶ 2.28, WTO Doc. WT/DS58/RW (June 15, 2001) [hereinafter *Shrimp-Turtle II Panel Report*], https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx?Query=(@Symbol=%20wt/ds58/rw*%20not%20rw2*)&Language=ENGLISH&Context=FomerScriptedSearch&languageUIChanged=true# [https://perma.cc/UBR3-SQJS].

129 *Id.* ¶ 5.2.

130 *Id.* ¶¶ 5.89–5.107.

131 *Id.* ¶¶ 5.90–5.104.

132 *Id.* ¶¶ 5.105–5.111. The panel also concluded that the revised regulation addressed the Appellate Body's concerns noted *supra* in note 127 regarding the United States' failure to attempt to negotiate a multilateral approach to protecting sea turtles with all affected countries (¶¶ 5.30–5.88), the discriminatory phase-in periods (paras. 5.112–5.116) and approach to technology transfers (¶¶ 5.117-5.120), and the lack of due process in determining compliance with the guidelines (¶¶ 5.126–5.136).

Article XX.[133] Significantly, in reaching this conclusion, the Appellate Body quoted its language in paragraph 121 of the original proceeding,[134] noting that measures protected under Article XX would frequently involve conditioning market access on policies prescribed by the importing country.[135] This statement, the Appellate Body indicated, "expresses a principle that was central to our ruling in *United States – Shrimp*."[136]

Taken together, the Appellate Body's reports in the *Shrimp – Turtle* dispute can be read to suggest that PPM-based measures can be divided into four tiers of increasing flexibility for the purposes of assessing their compliance with the chapeau of Article XX:

(1) measures that require exporting countries to adopt policies mandating the use of certain PPMs;
(2) measures that require exporting countries to adopt policies that are comparably effective in achieving the level of protection of the importing country's domestic program, *without* mandating the use of particular PPMs;
(3) measures that require producers in the exporting country to use certain PPMs, regardless of whether they are mandated by the government of the exporting country, and
(4) measures that require producers in the exporting country to achieve a certain standard of protection comparable to the standard achieved by importing country's domestic program, without requiring either that the exporting government mandate or that the producer use particular PPMs.

Tier 1 measures, such as the original guidelines rejected by the Appellate Body in *Shrimp Turtle I*, are generally incompatible with the chapeau of Article XX.[137] The status of Tier 2 measures that require only that the government of the exporting country achieve a

133 *See* Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products, Recourse to Article 21.5 of the DSU by Malaysia* ¶¶ 135–150, WTO Doc. WT/DS58/AB/RW (adopted Oct. 22, 2001) [hereinafter *Shrimp-Turtle II AB Report]*. The Appellate Body indicated that the compliance of the revised guidelines with the chapeau was contingent on the United States' "ongoing serious good faith efforts to reach a multilateral agreement." *Id.* ¶ 151.

134 *See Shrimp-Turtle I AB Report*, *supra* note 117, ¶ 121.

135 *See Shrimp-Turtle II Panel Report, supra* note 128.

136 *Shrimp-Turtle II AB Report, supra* note 133, ¶ 138.

137 Conceivably a Tier 1 measure could be justified under the chapeau if it was based on an adequate assessment of the appropriateness of a particular regulatory approach for the exporting country. *See supra* notes 125–127 and accompanying text.

comparable level of protection, such as the revised guidelines approved by the Appellate Body in *Shrimp – Turtle II*, is less clear. The panel in *Shrimp – Turtle II* indicated that the revised guidelines were only compliant with the chapeau because they also included a Tier 3 provision—i.e. they permitted the importation of TED-caught shrimp from countries that had not been certified as having a sea turtle protection program comparably effective to that of the United States.[138]

Yet, as Robert Howse has noted, the Appellate Body in *Shrimp – Turtle II* did not indicate that permitting shipment-by-shipment certification of turtle-safe shrimp was required for the revised guidelines to comply with the chapeau.[139] The United States had not appealed the panel's finding on the need to permit the importation of TED-caught shrimp from non-certified countries, and the Appellate Body did not rely on this aspect of the revised guidelines in determining that they were adequately flexible to satisfy the chapeau.[140] Howse argues that requiring shipment-by-shipment certification of compliance with a NPR PPM-based standard would be incompatible with the Appellate Body's assertion in paragraph 121 of *Shrimp – Turtle I*, reiterated in *Shrimp – Turtle II*, that measures that are justified under Article XX frequently "condition[] access to a Member's domestic market on whether exporting Members comply with, or adopt, a policy or policies unilaterally prescribed by the importing Member . . . ."[141]

If paragraph 121 is read to refer to Tier 1 measures, it is difficult to reconcile with the Appellate Body's finding in *Shrimp – Turtle I* that the original guidelines were impermissibly inflexible and coercive precisely because they conditioned market access on the adoption by exporting countries of specific policies regarding the protection of sea turtles.[142] A possible alternative interpretation is that the reference in paragraph 121 to "policy or policies unilaterally prescribed by the importing Member" encompasses Tier 2 measures, *i.e.* policies framed in terms of achieving a particular

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138 *See Shrimp-Turtle II Panel Report, supra* note 128, ¶ 5.111 ("[W]e consider that the United States, by modifying its guidelines and adjusting its practice so as to permit import of TED-caught shrimp from non-certified countries complies, as long as that situation remains, with the DSB recommendations and rulings in this respect.").

139 *See* Howse, *supra* note 115, at 511–512.

140 *Id.* at 512.

141 *See Shrimp-Turtle I AB Report*, *supra* note 117, ¶ 121.

142 *See Shrimp-Turtle II AB Report, supra* note 133, ¶ 137.

standard of protection. Conditioning market access on the adoption of regulatory mandates by the exporting company may in theory be compatible with the chapeau of Article XX, but it may also be deemed impermissibly inflexible and coercive if the same standard of protection could be achieved under an alternative regulatory program. Under this approach, a Tier 2 measure could be considered consistent with the chapeau given that it would represent a less coercive alternative to requiring the exporting country to adopt a specific regulatory approach.

Regardless of how paragraph 121 is interpreted with regard to Tier 2 measures, both the panel and Appellate Body reports in the *Shrimp—Turtle* dispute indicate that Tier 3 measures, requiring *producers* in the exporting country to use certain PPMs without requiring the government of the exporting country to adopt any regulatory program, are generally permissible under the chapeau.[143] And Tier 4 measures, which simply require that exporters meet certain non-product related performance standards comparable to those of the importing country, provide for maximum flexibility and the lowest level of intrusion on exporting Members' sovereignty and accordingly are compatible with the chapeau.

5. CARBON BTAS AND THE PPM ISSUE

Despite the prominent role the PPM issue has played in the Appellate Body's jurisprudence addressing environmental measures, it should not constitute a significant obstacle to the development and implementation of WTO-consistent carbon taxes. As discussed below, GATT Articles II:2(a) and III:2 and the ASCM explicitly permit the border adjustment of taxes on inputs used in the production process of "like" products. Similarly, Article XX's exceptions apply to measures—like properly designed carbon BTAs—that are based on the production processes of imported products, so long as the measures are sufficiently flexible and do not coerce the exporting countries to adopt policies mandating the use of specific PPMs.

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143 *See supra* notes 130–132 and accompanying text.

5.1. Carbon BTAs and "Like Product" Doctrine

The PPM doctrine that has emerged from the WTO's GATT jurisprudence should have limited implications for BTAs on carbon taxes. As discussed in Section 2, the text of GATT Article II:2(a) permits the adjustment of indirect taxes not only on "like" imported products, but also on "articles from which" the like imported products have been produced. Article III:2 similarly permits the adjustment of indirect taxes imposed not only directly on like products, but also imposed "indirectly," reflecting the intent of the drafters to protect the longstanding practice of border-adjusting consumption taxes, including taxes on different stages of the production process.[144]

Accordingly, a country imposing a carbon BTA on an imported product would not need to demonstrate that the production processes for the imported and domestic products subject to the tax rendered them "unlike" and therefore subject to different treatment. Instead, it would simply assert its right to border adjust on imports the taxes imposed "indirectly" (i.e. through taxes on a production input) on like domestic products. As reflected in the *Superfund* panel report, the focus of the inquiry under GATT Articles II:2(a) and III:2 with regard to a carbon BTA would not be on the likeness of the manufactured products, but rather whether the BTA on the imported product is assessed at a level that exceeds the tax on the domestic product.[145] The ASCM is even more explicit with regard to export BTAs, permitting the border adjustment of taxes on both incorporated and unincorporated inputs used to produce like

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[144] *See supra* Section 2.2.

[145] *See* Joost Pauwelyn, *Carbon Leakage Measures and Border Tax Adjustments under WTO Law*, RESEARCH HANDBOOK ON ENVIRONMENT, HEALTH & THE WTO 448, 489 (Geert Van Calster & Denise Prévost eds., 2013) ("[I]t would be rather odd for the WTO to intervene in this question of differentiating between types of steel depending on their carbon footprint, once the WTO has earlier accepted that carbon taxes or regulations can be adjusted at the border. In the *US – Superfund* case . . . the panel never questioned whether (taxed) imports *produced with* the chemicals were 'like' US products *not produced with* the chemicals."). *See also* Ross Astoria, *Design of an International Trade Law Compliant Carbon Border Tax Adjustment*, 6 ARIZ. J. ENVTL. L. & POL'Y 491, 506 (2015) ("It seems likely that the panel in [*U.S.*] – *Superfund* implicitly assumed that the domestic and imported chemical products were like (because of their identical chemical composition), observed that the tax rate on the precursor chemicals was equivalent, and therefore felt no need to inquire further.").

products, including "energy, fuels[,] and oil used in the production process . . . ."[146]

Thus, the NPR-PPM issue plays out very differently with regard to regulatory and tax issues. Border adjustment of NPR-PPM *regulatory standards* is generally prohibited under the like product jurisprudence (although potentially permissible under GATT Article XX). In contrast, border adjustment of NPR-PPM based *taxes, i.e.* taxes on prior stages in the production process, is expressly permitted under the language of the ASCM and Articles II:2(a) and III:2 of the GATT, so long as those taxes are not assessed at a higher level than the taxes borne by like domestic products.[147]

Conceivably, even a BTA that did not impose a rate that was in excess of the rate borne by the like domestic product could be subject to challenge on the grounds that, due to the higher CO2e emissions associated with the production of an imported product, it was subject to a higher effective tax burden than the domestic like product.[148] It is unclear, however, whether a higher tax burden on an imported product that results from the consumption of a higher amount of taxable inputs in the production process would be found to violate Article III:2. Such a finding would significantly impair the right of WTO Members under Articles II:2(a) and III:2 to border adjust indirect taxes on inputs in the production process.[149] It would also disrupt the parallel treatment of import and export BTAs.[150] Although export BTAs are now covered under the ASCM in addition to GATT, both GATT and the ASCM are "integral parts" of the WTO Agreement, and their provisions concerning border adjustment of taxes should presumably be interpreted in a

146 *See ASCM*, *supra* note 75, at n.61.

147 *See supra* Sections 2.2 and 2.6-2.7.

148 *See* Appellate Body Report, *Brazil – Certain Measures Concerning Taxation and Charges*, ¶ 5.35., WTO Doc. WT/DS472/AB/R, WT/DS497/AB/R (adopted Dec. 13, 2018), https://www.wto.org/english/tratop_e/dispu_e/472_497abr_e.pdf [https://perma.cc/E56D-PHY] ("A determination of whether an infringement of Article III:2, first sentence, exists must be made on the basis of an overall assessment of the actual tax burdens imposed on imported products, on the one hand, and like domestic products, on the other hand.").

149 *See* Working Party Report, *supra* note *27.*

150 *See* Working Party Report, *supra* note 27 and accompanying text (discussing the consensus of the 1970 Working Party on Border Tax Adjustments that the same principles applied to import and export BTAs despite their coverage under different provisions of GATT).

consistent manner.[151] And even if an import BTA of a carbon tax were found to violate GATT due to a higher effective tax burden based on greater CO2e emissions resulting from its production process, it could still be justified under the environmental exceptions provisions of Article XX of GATT.

5.2. Carbon BTAs and the Chapeau of Article XX

As discussed *supra* in Section 4, the PPM issue has been implicated under the chapeau of Article XX primarily in the context of the Appellate Body jurisprudence indicating that border measures must be flexible and not coerce exporting countries into adopting specific PPM-based regulatory programs. A carbon tax BTA would be consistent with this principle because it would not be a Tier 1 measure that required exporting countries to adopt particular PPM-based regulations. Rather, it would be a least-coercive Tier 4 approach,[152] simply assessing the BTA on imported products from EITE sectors based on the amount of CO2e associated with the products' production, regardless of what specific PPMs the manufacturer used to achieve that level of emissions (e.g., energy efficiency, different mixtures of energy sources, etc.)[153]

5.3. Calculating the BTAs

In calculating the BTAs for a carbon tax, the rate applied must not exceed the rate applied domestically.[154] Some latitude is permissible, however, in determining the relevant amount of CO2e associated with a product subject to the BTA.[155]

The approach that presents the lowest risk of trade conflict would be to use reliable data provided by exporters and importers regarding the CO2e emissions associated with the production of the

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[151] *See* Marrakesh Agreement Establishing the World Trade Organization, Apr. 15, 1994, 1867 U.N.T.S. 154, art. II:2 [hereinafter *Marrakesh Agreement*] (the Multilateral Trade Agreements included in Annexes 1–3 of the Marrakesh Agreement, including the GATT and the ASCM, "are integral parts of this Agreement . . . .")

[152] *See supra* Section 4.2.

[153] *Id.*

[154] *See supra* notes 91–94 and accompanying text.

[155] *See supra* notes 86–90 and accompanying text.

relevant product.[156] Where such data is unavailable, the government assessing the BTA may determine the relevant amount of CO2e subject to the price/ton CO2e by reference to the average emissions associated with the "predominant method of production" for the product.[157]

Some proposals have called for simply assessing BTAs at the same amount on imported products as the average amount imposed on like domestic products.[158] This approach, however, would likely violate GATT Article III:2 (and therefore not be protected under II:2(a)) if the imported products were in fact manufactured with lower associated CO2e emissions, given that it would result in an impermissibly higher rate/ton CO2e.[159] An import BTA regime relying on domestic average emissions for a product, accordingly, would need to permit importers to petition for a lower BTA based on lower CO2e emissions.

Export BTAs for products from EITE sectors could be based on national averages for the relevant products. To the extent that a manufacturer could demonstrate that it used a more energy-intensive process than the average and that its products therefore bore a higher effective carbon tax burden, it would in theory be permissible to assess an export BTA at a level higher than the average so long as it did not exceed the actual carbon taxes borne by the product.[160] This would, however, be inconsistent with the policy objectives of the carbon tax in that it could incentivize higher CO2e production processes for exported products.

Conversely, use of national averages could over-compensate exporters of products produced with lower than average CO2e

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156 *See supra* notes 87–89 accompanying text.

157 *See supra* note 90 and accompanying text. *See also* Working Party Report, *supra* note 27, ¶ 16 (explaining that average amounts of inputs may be used to calculate BTAs for composite goods); Pauwelyn, *supr*a note 145, at 488–91 (noting that in the absence of specific information from manufacturers, import BTAs may be assessed based on the predominant method of production).

158 *See, e.g.*, H.R. 6463, 115th Cong. (2018), https://www.congress.gov/115/bills/hr6463/BILLS-115hr6463ih.pdf [https://perma.cc/VU4F-MWR4], at 28 (amending the Internal Revenue Code to add the following as Section 9912(2): "The term 'border tax adjustment' means the levying of a tax on imported covered goods equivalent to the amount of tax paid pursuant to part 1 of this subtitle in the manufacture of comparable domestic manufactured goods . . .").

159 *See* Astoria, *supra* note 145, at 514–15 (assessing carbon BTAs based on tax borne by like domestic products would violate GATT Article III:2 if it resulted in a higher rate of taxation).

160 *See supra* notes 58–78 and accompanying text.

emissions and therefore potentially constitute impermissible export subsidies under the ASCM. Such over-compensation, however, would, in the aggregate, be offset by the under-compensation for exports of higher-CO2e products. Moreover, as a policy matter, it would presumably encourage lower-CO2e production processes.

6. CONCLUSION

The PPM issue has dominated discussions of the relationship between trade rules and environmental measures since the first *Tuna-Dolphin* panel report was issued in 1991. The WTO rules addressing the border adjustment of indirect taxes, however, have a different and much older provenance. Governments have border adjusted consumption taxes for more than two centuries. Articles II:2(a) and III:2 of GATT 1947 were drafted to accommodate this practice with regard not only to taxes on finished products but also taxes on inputs used in the production process. The lingering debate over the border adjustment of *taxes occultes* on energy and other inputs that are consumed in the production process was resolved in the 1995 ASCM. Accordingly, properly designed border adjustments for carbon taxes are a WTO-consistent policy tool that can be used as part of the broader efforts to address the defining environmental challenge of our time.