

TAXING, REGULATING, AND TRADING CARBON: AN INTRODUCTION TO THE SYMPOSIUM

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The global trade liberalization project has been one of the most successful efforts at international cooperation ever. Estimates of industrial nations' average tariffs in 1947, when the General Agreement on Tariffs and Trade (GATT) was negotiated, range from 20–40 percent.¹ The World Bank reports that in 1994, the year before the World Trade Organization (WTO) came into existence, the global applied average weighted tariff was still 8.57 percent.² Twenty years later, that number had fallen below 3 percent, and many developed nations, including the United States and the European Union (EU), have applied average tariffs around 1.5 percent.³ Beyond tariff rates, the GATT expanded from twenty-three original parties to the WTO's 164. Along with over three hundred regional free trade agreements and customs unions currently in force, the WTO has also reduced non-tariff barriers to trade in goods and liberalized trade in services.⁴ From a historical, economy-wide perspective, we live in a world that the GATT framers would likely have thought approximates free trade.

Trade liberalization has had enormous benefits: helping rebuild Europe and Japan after World War II, solidifying support for democracy during the Cold War, and lifting millions of people worldwide out of poverty. Yet, for all of the good it has done, trade liberalization has also contributed to new problems. Workers face increased disruptions to their employment prospects and long-term economic security due to competition from countries in which the state provides substantial support for industry. The comparative advantage that is the cornerstone of the economic case for free trade has led to the concentration of supply chains for critical products in certain countries, creating global vulnerabilities in the event of a disruption. And low barriers to trade, along with falling transportation costs, mean that governments can create a comparative advantage for themselves by imposing few regulatory requirements. Companies can thus produce goods in countries with weak labor and environmental standards and sell the goods in countries that would have applied higher standards to the same products had they been produced domestically.

This last problem is an especially significant one in global efforts to address climate change. Historically, commentators, international organizations, and indeed states have argued that the disruptions caused by trade liberalization should be addressed primarily through domestic measures, rather than through measures that restrict trade at the border.⁵ Although this line of thought has been particularly prominent with respect to

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¹ Chad P. Bown & Douglas A. Irwin, *The GATT's Starting Point: Tariff Levels Circa 1947*, at 1–2 (NBER Working Paper 21782, 2015).

² [World Bank Open Data](#).

³ World Bank, *Tariff Rate, Applied, Weighted Mean, All Products (%)*.

⁴ WTO, [Regional Trade Agreements Gateway](#).

⁵ See, e.g., Int'l Monetary Fund, World Bank & WTO, *Making Trade an Engine for Growth for All: The Case for Trade and for Policies to Facilitate Adjustment* 4 (2017) (“Understanding the various factors driving dislocations is critical to designing appropriate domestic policies to address them.”).

labor market disruptions, a similar thread of thought and policy is evident in how nations address trade liberalization's impact on environmental matters like climate change. For example, the EU Emissions Trading Scheme (ETS) is a cap-and-trade system that created a domestic carbon price within the EU for producers within certain sectors, who are required to purchase (or otherwise obtain) allowances to cover their carbon emissions. In the presence of low trade barriers, however, a domestic carbon price could lead to substituting low-cost imports not subject to the carbon price for higher priced domestic products. The ETS addressed such concerns not by imposing a carbon price on imports, but rather by granting domestic producers free allowances (i.e., the right to emit carbon without paying for it).

Today, however, scholars and states themselves are increasingly aware that purely domestic approaches to addressing the dislocations caused by trade liberalization generally, and climate change specifically, are not likely to be effective. Markets like that created by the EU ETS are unlikely to result in carbon prices that internalize the full cost of carbon if they address competitiveness concerns via free emissions. For that reason, states have begun to introduce trade policies to support their domestic efforts. In the climate change space, the EU's Carbon Border Adjustment Mechanism (CBAM) is the first major (supra)national effort to use trade tools to bolster a decarbonization agenda.

This symposium addresses the potential risks and rewards of carbon border adjustments like the EU CBAM. Carbon border adjustments are policies that impose a charge on imports, based on the amount of carbon embedded in the product, that is ostensibly equivalent to the carbon price charged on domestic products. Such trade policies are often framed as responding to the problem of "carbon leakage." Cheap transportation costs and low import barriers allow producers to shift production from countries with high domestic environmental standards to countries with weak environmental standards. As Gregory Shaffer has put it, trade law and the low barriers to trade that it supports creates the possibility that production in one country undermines the domestic regulatory system and broader social bargain in another country.⁶ Targeted trade measures, in turn, may be necessary to ensure the integrity of individual nations' social choices while also preserving the enormous benefits that flow from the global system of liberalized trade.

The issue is about more than simply the relocation of producers, however. Nations also have an interest in whether their consumption fuels global problems. Even if, for example, European producers do not relocate to avoid the EU ETS, the EU has an interest in whether its consumers are funding environmentally harmful activity. Nations increasingly are asserting the right to tax and regulate on the basis of their interests in the goods and services they consume, not only those that they produce.⁷ The concern about carbon leakage is thus not only about producers moving overseas. Properly understood, it is about how trade liberalization can lead to shifts in consumption patterns that have significant negative externalities, in this case for the climate.

Given the urgency of the climate crisis, the fact that the success of robust domestic decarbonization measures depends on complementary trade policies, and nations' increased interest in ensuring that their consumption does not exacerbate global public bads, it is no wonder that nations around the world are taking a hard look at imposing carbon border adjustments. But developing a trade policy that supports decarbonization involves a series of choices. Should nations first pursue unilateral action, or should they negotiate with other nations before they implement measures domestically? Should states design their CBAMs or similar measures with WTO consistency in mind? Alternatively, should they pick the most environmentally effective measures that are politically and technically feasible given their individual circumstances? If states negotiate, how tightly should they seek to coordinate

⁶ Gregory Shaffer, *Retooling Trade Law for Social Inclusion*, 2019 U. ILL. L. REV. 1 (2019).

⁷ See, e.g., Eur. Comm'n Press Release, [Press conference by Executive Vice-President Frans Timmermans and Commissioner Sinkevičius on a Package of Proposals on Soil, Waste and Deforestation](#) (Nov. 17, 2021) ("EU demand for commodities like palm oil, soy, wood, beef, cocoa, and coffee are strong drivers of deforestation.").

their measures? For example, should they seek to coordinate their domestic decarbonization policies, or merely seek to cooperate on international trade? With respect to the latter, should they cooperate primarily on technical matters, such as how to measure carbon embedded in products, or should they also focus on developing similar trade policies in order to enhance the benefits of trading among partners and decrease the administrative burden on businesses?

The Essays

The symposium contributions address a number of these questions from a range of different perspectives. Chiara Galiffa and Ignacio Garcia Bercero of the European Commission address two issues.⁸ First, they describe the central aspects of the European Commission's CBAM proposal and defend the CBAM's WTO-consistency. For them, the CBAM "replicates the main features of the ETS . . . but with necessary adaptations due to the CBAM's application to products rather than producers."⁹ For this reason, they argue, the CBAM is a non-discriminatory environmental measure consistent with WTO rules. One of the chief objections to this claim is that the CBAM would credit importers for explicit carbon prices paid in their home market—such as a carbon tax—but not credit importers for the costs of complying with decarbonization regulations—such as regulations requiring the use of technology that reduces carbon emissions. Two versions of the same product with the same carbon profile would be assessed the same initial CBAM price upon import into the EU, but they could face a different net CBAM price depending on whether the producer set its emissions in response to a carbon tax (which would be deducted from the CBAM price) or regulations (for which the costs of complying would not be deducted from the CBAM price). Anticipating this objection, the authors argue that decarbonizing in response to regulations would result in a reduced CBAM price, and hence CBAM does not unjustifiably discriminate between countries based on their domestic approaches to decarbonization.

Second, they outline a range of ways in which nations might cooperate on decarbonizing the industrial sector. These proposals include agreeing on decarbonization targets; developing common methodologies for measuring embedded carbon; coordinating measures to respond to carbon leakage; providing assistance to decarbonize industry in low- and lower-middle-income countries; and developing a carbon club.

The next two contributions focus on the WTO-consistency of CBAMs in general and the EU CBAM in particular, albeit from different perspectives. Geraldo Vidigal and Ingo Venzke of the University of Amsterdam agree that in principle CBAMs can be consistent with WTO rules.¹⁰ Tracing the development to the Appellate Body's decision in *United States – Shrimp*, they argue that it is now well established that environmental measures that restrict trade are permissible under WTO rules. But the devil is in the details. Because most border adjustments will produce uneven effects on imports, border adjustments likely must be justified under one of the exceptions contained in WTO rules. Vidigal and Venzke see three challenges to justifying the EU CBAM or measures similar to it.

The first is the decision to exempt from the EU CBAM countries outside the EU that either apply the EU ETS voluntarily or have a similar domestic regime linked to the EU ETS. In addition to the issue of credits for explicit carbon pricing but not for regulatory costs, noted above, this exemption would seem to discriminate in favor of countries that adopt the same regulatory approach as the EU, which the WTO Appellate Body said in *United States – Shrimp* is not permitted. Second, nations must confront whether they have the right, or possibly the obligation, to

⁸ Chiara Galiffa & Ignacio Garcia Bercero, *How WTO-Consistent Tools Can Ensure the Decarbonisation of Emission-Intensive Industrial Sectors*, 116 AJIL UNBOUND 196 (2022).

⁹ *Id.* at 196.

¹⁰ Geraldo Vidigal & Ingo Venzke, *Of False Conflicts and Real Challenges: Trade Agreements, Climate Clubs, and Border Adjustments*, 116 AJIL UNBOUND 208 (2022).

give effect to the principle of common but differentiated responsibilities (which is codified in the Paris Agreement) in the design of any CBAM. Third, Vidigal and Venzke evaluate the claim that protectionist discrimination may actually promote climate change mitigation. As they see the argument, “[i]f each country imposes carbon costs solely on foreign products and much of global production continues to be traded internationally, eventually a majority of production will have to pay for carbon emissions, while every government can claim to be imposing costs solely on foreigners.”¹¹ They worry, though, that unilateral extraterritorial carbon-pricing schemes are likely to face fierce opposition that ultimately undermine their economic and climate objectives.

Ilaria Espa of the Università della Svizzera italiana in Switzerland addresses a tension in justifying CBAMs under WTO rules.¹² On the one hand, CBAMs are environmental measures designed to ensure that a nation does not shift its consumption from low-carbon domestic products to high-carbon imports, thus undermining the environmental effectiveness of domestic environmental rules. Viewed in this light, they are environmental measures. On the other hand, CBAMs aim to address competitiveness concerns that arise from different domestic approaches to regulating carbon emissions. In this sense, they are tools of national industrial policy, integrating a nation’s domestic decarbonization policies with a general policy of economic openness by ensuring the competitiveness of domestic producers.

Espa argues that the mixed motives that underlie CBAMs risk undermining their legitimacy because industrial policy features of CBAMs are the most likely to raise problems under WTO law. She argues, however, that the “apparent contradiction between the climate and the industrial narratives can . . . be reconciled if CBAMs are designed to achieve nothing more than the equalization of carbon costs in sectors exposed to carbon leakage.”¹³ Furthermore, she argues that adherence to WTO rules can actually improve the environmental effectiveness of CBAMs, such as by reinvesting revenues raised from CBAMs in climate initiatives or by crediting producers with carbon prices paid in their home markets. She credits the EU for its attempts to design a CBAM that hews closer to climate objectives, while at the same time noting that the EU CBAM arguably discriminates among countries based on their domestic decarbonization measures and misses an opportunity to incorporate common but differentiated responsibilities.

The final two contributions focus more on approaches to international cooperation on CBAMs and climate measures, as opposed to the WTO consistency of individual measures. Both the essays by Michael Mehling (Massachusetts Institute of Technology), Harro van Asselt (University of Eastern Finland), Susanne Droege (German Institute for International and Security Affairs), and Kasturi Das (Institute of Management Technology, Ghaziabad in India), on the one hand, and Makane Moïse Mbengue and Elena Cima of the University of Geneva, on the other, praise the prospect of climate clubs that can coordinate climate measures across national boundaries.¹⁴ Such clubs are becoming a reality. Three nascent examples are the EU CBAM itself, which exempts the handful of non-EU countries that have effectively joined the ETS; the U.S.-EU Global Arrangement on Steel and Aluminum, which resolved the trans-Atlantic conflict over the U.S. “national security” tariffs and initiated the development of a framework for cooperating on measures to promote trade in market-oriented, decarbonized steel and aluminum; and recent bilateral initiatives, such as the 2020 Switzerland-Peru agreement on carbon offsetting. Other proposals are at various stages of discussion in different fora, including the G7/G20 via a proposal from Germany; the WTO under the auspices of the Trade and Environmental

¹¹ *Id.* at 208.

¹² Ilaria Espa, *Reconciling the Climate/Industrial Interplay of CBAMs: What Role for the WTO?*, 116 AJIL UNBOUND 191 (2022).

¹³ *Id.* at 191.

¹⁴ Michael Mehling, et al., *The Form and Substance of International Cooperation on Border Carbon Adjustments*, 116 AJIL UNBOUND 202 (2022); Makane Moïse Mbengue & Elena Cima, *“Clubbing in the Club”: Could Climate-Related Trade Arrangements Set the Pace for Future Climate Cooperation?*, 116 AJIL UNBOUND 219 (2022).

Sustainability Structured Discussions; and negotiations on an Agreement on Climate Change, Trade and Sustainability by Costa Rica, Fiji, Iceland, New Zealand, Norway, and Switzerland.

But while Mehling, et al. and Mbengue and Cima both focus on the possible role of climate clubs, they differ in their approach. Mehling, et al. focus on the design of such institutions, analyzing options for the form, forum, and substance of climate clubs. They argue “that the form and substance of [climate clubs] are closely interrelated.”¹⁵ They foresee an evolutionary process in which cooperation may begin with a limited geographic and normative scope but expand over time. At the same time, though, they caution that “if cooperation on BCAs accelerates the current trend toward expanded use of coercive trade measures to advance domestic political priorities, it will also have to carefully navigate the attendant risks.”¹⁶ Thus, they argue that cooperation on carbon border adjustments should be inclusive and transparent and should ideally extend to measures that would allow for greater diffusion of clean technology.

Mbengue and Cima, for their part, embrace more directly the idea of cooperation among a smaller group of like-minded countries. They note both the history of such agreements within the climate systems—such as the Kyoto Protocol’s flexibility mechanisms and Article 6 of the Paris Agreement, which permits countries to enter into cooperative agreements among a subset of members—and the increasing use of plurilateral or minilateral discussions in the trade regime to advance otherwise stalled negotiating agendas. For them, smaller groups of like-minded states have frequently been the driving force behind what became broader multilateral institutions. The WTO itself, which began with twenty-three original GATT parties, is the classic example. At the same time, a club serves to not only create an incentive structure for other states—as individual action like the EU CBAM does—but magnifies the impact of the incentive structure while also creating a cooperative system of exchange within member countries. In this way, clubs of like-minded countries can establish deep pathways of cooperation faster than larger multilateral negotiations, reap the benefits of that cooperation among themselves, and ultimately lay the foundations for multilateral cooperation on terms more likely to meet the demands of the climate emergency.

Conclusion

After years of fits and starts, WTO members have at last begun to think seriously about how trade policy can and should be used to address the climate crisis. Carbon border adjustments have long offered the promise of using trade policy to support the adoption of aggressive decarbonization measures domestically. But the EU’s CBAM has crystallized many of the issues around how to design carbon border adjustments and provided a spur to action for other nations. The essays in this symposium explore many facets of the EU’s proposal and the choices the EU made in designing its CBAM, as well as the trajectory that future cooperation on carbon border adjustments may take.

¹⁵ Mehling, et al., *supra* note 14, at 202.

¹⁶ *Id.* at 219.