The European Union (EU) recently proposed the introduction of a carbon border adjustment mechanism (CBAM) and suddenly transformed into reality an almost two decade-long debate over the hypothetical use of CBAMs as antidotes to uneven carbon prices. The European Commission presented the scheme as a climate measure aimed at reducing the risk of carbon leakage for energy intensive and trade-exposed industries facing the cost of increased climate ambition. At the same time, however, it listed the mechanism among the instruments that support a “competitive [green] transition” for EU businesses in the context of the new industrial strategy supporting the EU Green Deal. This ambiguity risks undermining the credibility of the scheme as a legitimate climate response unless it can be shown that the equalization of carbon costs (i.e., the fair competition/industrial component) is instrumental to achieving higher emission reduction levels than could have been achieved otherwise (i.e., the carbon leakage/climate component). While the exact balance between climate- and industrial-informed features is ultimately an issue of design, this essay argues that making the scheme (as) compatible (as possible) with the rules of the World Trade Organization (WTO) improves its environmental effectiveness and accordingly contributes to reconciling the CBAM with its stated climate purpose.

The Climate/Industrial Interplay of CBAMs

In a world of asymmetric carbon prices and in anticipation of increasingly heterogenous carbon constraints as allowed under the Paris Agreement, ambitious climate policies may lead to carbon leakage, that is, the increase in emissions abroad resulting from the shift in production toward jurisdictions with no or less stringent carbon constraints (thus conferring an unfair competitive advantage). To mitigate such risks, “virtuous” countries have traditionally resorted to measures that would level down carbon prices domestically, such as the granting of free allowances in the context of emission trading schemes (ETSs) like the EU ETS or tax exemptions in the case of carbon taxes. By contrast, CBAMs are trade instruments that seek to “level [up] carbon costs for foreign producers and...
maintain their application on domestic firms, except when they export their products abroad.”3 In this respect, they can in principle constitute a better climate alternative in that they would allow countries to keep strong domestic carbon prices while at the same time avoiding an “unfair” loss of competitiveness for domestic enterprises.

The fairness logic inherent in the equalization mechanism typical of CBAMs has, however, generated much concern that CBAMs could be construed as sophisticated instruments of “green” industrial policy aimed at protecting domestic firms vis-à-vis foreign competitors rather than genuinely serving climate change goals. Evidently, there is a built-in industrial component in the CBAM narrative because border carbon adjustments work by leveling the playing field, thus preserving the competitiveness of domestic enterprises. Importantly, however, this industrial logic does not necessarily eviscerate the stated climate purpose of CBAMs; it could actually contribute to it to the extent that the risk of carbon leakage materializes only when competitiveness concerns are not adequately addressed in the country that is imposing strong climate policies. The apparent contradiction between the climate and the industrial narratives can thus be reconciled if CBAMs are designed to achieve nothing more than the equalization of carbon costs in sectors exposed to carbon leakage.

Not surprisingly, this is the approach (perhaps not disingenuously) espoused by the European Commission in its CBAM proposal when stating that the “overarching objective” of the mechanism is “addressing the risk of carbon leakage in order to fight climate change by reducing GHG [greenhouse gas] emissions in the Union and globally.”4 The European Commission does admit that achieving this goal requires that EU products and imported products are on an equal footing in terms of EU ETS carbon pricing.5 The Commission, however, contends that such fair competition logic is merely instrumental to achieving the CBAM’s declared climate purpose. It accordingly stresses two main features of the scheme: first, its narrow sectoral coverage; second, its strict equalization logic. As to the former, the Commission proposes that the CBAM target (at first) only those sectors (namely, cement, steel, electricity, aluminum, and fertilizers) that are exposed to the highest risk of carbon leakage because of their trade and carbon intensity so that the scheme delivers the “highest environmental impact at relatively low administrative effort.”6 As to the latter, the Commission envisages the CBAM as a notional ETS mirroring the existing EU ETS so that covered imported products are “subject to a carbon price equivalent to the one they would have paid under the EU ETS, had they been produced in the EU.”7 How such overarching, declaratorily climate-informed equalization logic is operationalized, however, could in practice make a difference between a CBAM that fulfills industrial goals instrumentally (that is, as a means to counteract carbon leakage risks) rather than undisguisedly (that is, having competitiveness rather than climate goals in mind).

Relevant Design Features

While the exact configuration of the EU CBAM is far from established, an analysis of the proposal as it stands illustrates how varying levels of alignment to the equalization logic may impact the scheme’s ability to counteract

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4 CBAM Proposal, supra note 1, at 15; see also Art. 1.
5 Id. at 21.
7 Impact Assessment Report, supra note 6, at 17.

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carbon leakage. A handful of design features are particularly revealing in this respect in that they may either improve or frustrate the environmental effectiveness of the scheme.

The first relevant feature is trade flows coverage. The most comprehensive form of border carbon adjustment includes adjustments of both imports (i.e., by extending a domestic carbon price to imported products) and exports (i.e., by rebating such price upon the export of domestic products). Extending CBAMs to exports is in principle consistent with a fair equalization logic to the extent that it addresses domestic industries’ concerns over competitive disadvantages linked to asymmetrical carbon prices in foreign markets. In practice, however, much depends on the details of the export rebates system: a scheme that completely exempts exports arguably privileges industrial motives over carbon leakage due to the absence of a mechanism to adjust export rebates based on the existence of explicit/implicit carbon pricing policies in the destination countries. Similar considerations apply if export rebates are not “adjusted” to take into account the number of emission allowances that are still allocated for free to domestic industries in the EU ETS, as this would lead to double protection scenarios for domestic industries. More generally, including export rebates may undermine the scheme’s ability to counteract carbon leakage by disincentivizing emission reductions in export-oriented sectors. The European Commission discarded this option after acknowledging that “[t]he inclusion of refunds of a carbon price paid in the EU would undermine the global credibility of EU’s raised climate ambitions.”

The second critical feature is geographical scope. Here again, a straightforward fair competition logic would require that the CBAM apply to imports coming from (and exports destined for) any foreign country. Depending on the specifics of the CBAM, however, specific exemptions may still be granted without necessarily frustrating the environmental effectiveness of the scheme. In the case of the EU CBAM, the proposal to exclude imports coming from countries with an ETS linked to the EU ETS does not contradict the scheme’s carbon leakage objective to the extent that such linking agreements essentially achieve equivalence in carbon pricing. More generally, it is debated whether least-developed countries (LDCs) and small island developing states could be excluded in light of their “special circumstances” as recognized under the Paris Agreement. Importantly, the European Commission discarded this option by arguing that a blanket exemption “will encourage [least-developed countries] to increase their level of emissions and run counter to the overarching [carbon leakage] objective of the CBAM.”

The third revealing design feature is the carbon price calculation methodology. Under a formal fair equalization logic, the basis for the adjustment should be determined by the actual carbon content of goods (that is, their “embedded” emissions) given that default values might result in higher prices being imposed on imported products. Where technical and administrative challenges make it unavoidable, the choice of default values should therefore be targeted to minimize the risk of overprotecting domestic industries, e.g., by reflecting the group average carbon price for each category of domestic (carbon-constraint) products. This is arguably what the EU proposal purports to achieve by giving preference to actual carbon declaration and combining it with residual default values based on European production site average emissions.

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8 Such a correction mechanism is envisaged on the import side for as long as free allowances will be granted to EU installations. CBAM Proposal, supra note 1, Art. 31, para 1.

9 Impact Assessment Report, supra note 6, at 42. Of a different opinion is the European Parliament, although uncertainty remains as to how export rebates may look like: Eur. Parliament, supra note 6, amend. 262.

10 CBAM Proposal, supra note 1, Art. 2.3; see also Annex II.

11 See, e.g., Art. 4, para. 6.


13 CBAM Proposal, supra note 1, Artt. 7.2–7.3; see also Annex III.
Another critically important feature of CBAMs is the extent to which the adjustment may be reduced to account for any carbon price imposed on imported products in the country of origin. The issue here is whether exemptions or reductions from CBAMs should be granted based on explicit and/or implicit carbon pricing. A formal (climate-informed) equalization logic would arguably require crediting both, although this may ultimately lead to (climate-)inconsistent outcomes given that the effects of non-pricing policies are extremely difficult to estimate and may be miscalculated. In this respect, determining the equivalence between carbon pricing and non-price regulatory measures (e.g. standards) may be particularly challenging. Cognizant of such difficulties, the European Commission proposed that only explicit carbon pricing may be credited under the CBAM, after noting that “like the EU, most countries will have both pricing and non-pricing approaches to reducing carbon emissions.”

This choice arguably reflects the fact that the EU CBAM is itself linked to an explicit carbon pricing policy such as the EU ETS—accordingly, it purports to avoid double charging practices that would frustrate the CBAM’s carbon leakage objective. At the same time, it attempts to avoid engaging in burdensome adjustments to account for its own non-pricing policies, which may ultimately be problematic from a (climate-informed) equalization perspective.

Finally, another relevant feature is the use of CBAM revenues. Using revenues for international climate action rather than for domestic industrial support would arguably strengthen the CBAM’s alignment with its underlying carbon leakage narrative. In the case of the EU CBAM, the Commission’s proposal suggests that most revenues go to the EU budget without specifying their exact destination. Interestingly, however, a proposed amendment approved by the European Parliament requires financial support to be provided to LDCs in order to generally assist them in their efforts towards decarbonization.

WTO Consistency as a Guiding Factor

Scrutinizing the EU’s CBAM proposal helps to illustrate how those design elements that are most likely to tilt the balance toward the industrial end of the spectrum are also the most problematic when analyzed through the lens of WTO law. At the same time, those features that make the most sense from a carbon leakage perspective are also the ones that could help legitimize the CBAM under relevant WTO exceptions.

In the EU’s proposal, several features are manifestly informed by potential WTO constraints arising out of non-discrimination rules. The preference for actual carbon declarations, the mechanism to reduce the adjustment based on the number of EU emission allowances allocated for free, and the choice to credit explicit carbon pricing policies of other countries are all elements that are arguably intended to make the EU CBAM “mirror” the EU ETS with a view to strengthening its case under the national treatment principle (Article III of the General Agreement on Tariffs and Trade, or GATT), which prohibits discrimination between domestic and foreign like products. Overall, these design features purport to align the scheme to the strict equalization logic that legitimizes the very idea of CBAMs as a means to counteract carbon leakage via the restoration of “fair” competition.

14 Id. Art. 9.
17 CBAM Proposal, supra note 1, at 11.
18 Amendments, supra note 6, amend. 130.
Depending on the exact modalities, however, this may still not suffice from a WTO law standpoint: discriminatory outcomes may still result out of the application of default values, the precise methodology used to take into account the free allocation of allowances and the carbon price imposed in third countries, and the exclusion of implicit carbon pricing crediting. Origin-based discrimination is also virtually certain since those countries that are either integrated or linked to the EU ETS are exempted from the CBAM in violation of the most-favored nation clause (Article I of GATT).

Accordingly, the EU CBAM proposal does include certain design features that are prudently construed to strengthen an “environmental” defense under Article XX of GATT. On the one hand, the Commission is very careful in evaluating options that appear more proximate to an industrial logic and/or may compromise the environmental effectiveness of the CBAM—it warns against the risks entailed by the inclusion of export rebates; it envisages the gradual phase out of the transitional application of free allocation of EU emission allowances while mitigating risks of double-protection; and it gives preference to actual carbon declaration instead of default values. On the other hand, whenever it deviates from a formal equalization logic, it strives to show that this does not impair a climate-consistent outcome. For instance, the decision to grant exemptions or reductions from the CBAM based on explicit carbon pricing alone is allegedly justified by the relatively minor burden that imported products subject to implicit carbon pricing would bear as a result of decarbonization. Similarly, the exemption of imports coming from countries with emission trading schemes linked to the EU ETS purports to account for the equivalence in carbon pricing that already exists in such cases.

While such features arguably attempt to show genuine commitment toward the carbon leakage objective underlying the CBAM, the Commission’s proposal does not always succeed in prioritizing climate-informed solutions over industrial concerns to the extent that there still remain controversial features such as the transitional application of free allocation in combination with the CBAM. To a lesser extent, the lack of exemptions for LDCs and small island developing states and the lack of specific commitments as to the use of CBAM revenues may also be considered a missed opportunity from a climate standpoint. Importantly, however, these are all elements that may make the proposed CBAM less likely to meet the (chapeau) requirements of Article XX of GATT. While it remains to be seen what the final design for the EU CBAM will be, recalibrating these features in line with WTO law requirements would arguably better align it with its underlying climate purpose. Whether a full realignment of the CBAM design to climate-informed features will work politically or end up compromising industrial stakeholders’ support, however, is another matter.

Conclusion

CBAMs inevitably contain a strong industrial component as measures that seek to re-establish “fair” competition to effectively counteract carbon leakage. Accommodating competitiveness concerns does therefore not necessarily frustrate CBAMs’ underlying carbon leakage objective provided that the schemes remain aligned to a strict equalization logic. The case of the EU CBAM shows that there is a handful of (very controversial) design features that can make the difference between a scheme that actually delivers on its stated climate goal and one that unduly favors industrial objectives. Pressures may reach a new high due to the anticipated increase in the cost of carbon at a time of fierce foreign competition and strong economic instability, as shown by the most recent revival of industrial policy in developed countries more generally. Yet WTO-proofing the CBAM may serve to reconcile this climate/industrial interplay. Insisting on WTO consistency may arguably justify the complex, lengthy, and experimental process aimed at increasing the climate ambition of the scheme in spite of industrial resistance.