

The EU Proposal for a Carbon Border Adjustment Mechanism (CBAM): An Analysis under WTO and Climate Change Law

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**The EU Proposal for a Carbon Border Adjustment Mechanism (CBAM):
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Abstract

This paper scrutinizes the European Union’s proposal for a carbon border adjustment mechanism (CBAM) under the rules of the World Trade Organization (WTO) and climate change law. It first examines the logic behind the CBAM as a border carbon adjustment measure, having due regard to the complex interplay between its stated carbon leakage rationale and its fair competition mechanics. It then dissects the main anticipated features of the CBAM and discusses how they may fare under both WTO law and climate change law. Finally, it identifies the most critical proposed design elements from a legal perspective and discusses possible alternatives or variations that could better align the CBAM with its climate change purpose.

JEL codes: F18, Q56

Keywords: carbon leakage, CBAM, border carbon taxes, trade and climate

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1. Introduction

Achieving the temperature objective of the Paris Agreement¹ requires achieving carbon neutrality by 2050.² A (growing) number of countries have assumed net-zero targets to meet the challenge,³ with progress towards the 1.5°C/2°C goal still remaining largely insufficient.⁴ However, the need to scale up climate ambition is as urgent as ever.⁵

Carbon pricing policies have long been recognised as an ‘indispensable part of a strategy for reducing emissions in an efficient way’.⁶ Based on the latest available data, 68 regional, national, and subnational jurisdictions have either adopted carbon pricing mechanisms (i.e., carbon taxation schemes and/or emissions trading systems (ETSs)), or are expected to implement them in the near future.⁷ While these mechanisms cover a substantial share of greenhouse gas emissions and they have led to an emission reduction in some cases,⁸ they have generated widely differentiated carbon price signals, which often have remained significantly below the levels that are deemed necessary to achieve the Paris temperature goal.⁹ More generally, domestic climate policies have become increasingly heterogenous as a result of the ‘bottom-up, non-binding approach based on self-determination and self-differentiation’ espoused by the Paris Agreement,¹⁰ and are likely to remain

¹ Under the Paris Agreement, Parties committed to hold the increase in global average temperature to ‘well below 2°C’ compared to pre-industrial levels and to ‘pursue efforts’ to limit the increase to 1.5°C in accordance with the Paris Agreement: Paris Agreement (adopted 12 December 2015, entered into force 4 November 2016) 55 ILM 740, arts 2(1) and 4(1).

² Joeri Rogelj et al, ‘Mitigation Pathways Compatible with 1.5°C in the Context of Sustainable Development’ in Valérie Masson-Delmotte et al (eds), *Global Warming of 1.5°C* (World Meteorological Organization and United Nations Environment Programme 2018) 95.

³ To date, 85 Parties to the Paris Agreement have communicated a net-zero target through their nationally determined contributions (NDCs), long-term low greenhouse gas emissions development strategy, domestic law, policy, or high-level political pledge such as head of state commitment. They represent 89 countries and 75.3% of global greenhouse gas emissions: Climate Watch, ‘Net-Zero Tracker’ <<https://www.climatewatchdata.org/net-zero-tracker>> accessed 27 September 2022.

⁴ Based on current pledges, the increase in global average temperature is projected to reach 2.4°C by 2100, with over a 95% probability of exceeding 1.5°C: see Climate Action Tracker Thermometer: <<https://climateactiontracker.org/global/cat-thermometer/>> accessed 15 February 2022. For an overview of current NDCs, see also UNFCCC, ‘Synthesis Report for the Technical Assessment Component of the First Global Stocktake’ 30 March 2022) <https://unfccc.int/sites/default/files/resource/GST_SR_23c_30Mar.pdf> accessed 27 September 2022.

⁵ IPCC, ‘Summary for Policymakers’ in Valérie Masson-Delmotte et al, *The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (World Meteorological Organization and United Nations Environment Programme 2021) 14.

⁶ Carbon Pricing Leadership Coalition, ‘Report of the High-Level Commission on Carbon Prices’ (International Bank for Reconstruction and Development and International Development Association/The World Bank 2017) 1. See also Nicholas Stern, *The Economics of Climate Change: The Stern Review* (Cambridge University Press 2006) 353.

⁷ World Bank, ‘Carbon Pricing Dashboard’ <https://carbonpricingdashboard.worldbank.org/map_data> accessed 27 September 2022. The Dashboard tracks both carbon taxation schemes and emission trading systems.

⁸ The European Union ETS, for instance, has reportedly reduced emissions from power generation and energy-intensive industries by 42.8 percent since 2005: European Commission, ‘European Green Deal: Commission Proposes Transformation of EU Economy and Society to Meet Climate Ambitions’ (14 July 2021) <https://ec.europa.eu/commission/presscorner/detail/en/IP_21_3541> accessed 27 September 2022.

⁹ The High-Level Commission on Carbon Prices, among others, concluded that an explicit carbon price of US\$40-\$80 per ton of CO₂ equivalent by 2020, rising to US\$50-\$100 per ton by 2030, would allow for the achievement of the Paris goals when combined with a ‘supportive policy environment’: Carbon Pricing Leadership Coalition (n 6) 3.

¹⁰ This definition is borrowed from Reinhard Quick, ‘Carbon Border Adjustment: A Dissenting View on its Alleged GATT-compatibility’ (2020) 4 ZEuS 581. As per art 4(3) of the Paris Agreement (n 1), Parties committed to submit nationally determined contributions that correspond to the ‘highest possible ambition, reflecting [their] common but differentiated responsibilities and respecting capabilities, in light of different national circumstances’.

so in the near- to mid-term.¹¹

Against this backdrop, ‘virtuous’ Parties to the Paris Agreement face the dilemma of how to ramp up climate ambition while at the same time ensuring that strong domestic carbon prices do not lead to carbon leakage, that is, the increase of emissions abroad that may result from the increase in carbon dioxide (CO₂) emissions within jurisdictions with no or less stringent carbon constraints (conferring an unfair competitive advantage).¹² The European Union (EU) is the first of such Parties to have proposed an ambitious, full-fledged climate policy package – the so-called ‘Fit for 55’ package¹³ – that heavily relies, on the one hand, on a revised and much strengthened ETS¹⁴ and, on the other hand, on the introduction of a carbon border adjustment mechanism (CBAM)¹⁵ on imported products with the declared purpose to ‘reduce the risk of carbon leakage’¹⁶ entailed by the anticipated increase in the price of EU emission allowances (EUAs).¹⁷ The proposed mechanism is to take the form of a ‘notional’ ETS, whereby importers of covered products will have to purchase non-tradable ‘CBAM certificates’ at a price that will mirror the EUA price and surrender such certificates to cover the embedded emissions in their imports.¹⁸

¹¹ As noted by Mehling and colleagues, ‘[w]ith its universal coverage, long-term goals, and dynamic ambition mechanism, the Paris Agreement creates a framework under which ... climate actions should increase over time, eventually leading to a convergence of different countries’ climate policies. Yet, with countries beginning from very different starting points and political realities, it is likely that efforts will remain heterogeneous and asymmetrical for the foreseeable future.’ Michael Mehling et al, ‘Designing Border Carbon Adjustment for Enhanced Climate Action’ (2019) 113(3) *American Journal of International Law* 433, 437–438.

¹² Partnership for Market Readiness, ‘Carbon Leakage: Theory, Evidence and Policy Design’, PMR Technical Note 11 (World Bank 2015); Michael Grubb et al, ‘Carbon Leakage, Consumption, and Trade’ (2022) 47 *Annual Review of Environment and Resources*.

¹³ Released on 14 July 2021, the Fit-for-55 package is a comprehensive legislative package that contains the revisions and initiatives linked to the European Green Deal climate actions (European Commission, ‘The European Green Deal’, COM(2019) 640 final, 11 December 2019) and, in particular, the legally binding target of reducing emissions to at least 55 percent below 1990 levels by 2030 with a view to achieve carbon neutrality by 2050, as set forth in the EU Climate Law (Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 [2021] OJ L243/1). For more details, see Section 2.3.

¹⁴ European Commission, ‘Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union, Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and Regulation (EU) 2015/757’, COM(2021) 551, 14 July 2021 (hereinafter ‘European Commission, Revision of EU ETS Proposal’). The Commission is proposing, among others, to lower the overall emission cap and increase its annual rate of reduction, and to phase out free allowances (now 43 percent of total allowances). In its revised form, the EU ETS is expected to reduce emissions of covered installations by 62–63 percent compared to 2005 levels by 2030. See European Commission, ‘Impact Assessment Report Accompanying the Proposal for a Regulation of the European Parliament and of the Council establishing a Carbon Border Adjustment Mechanism’, SWD(2021) 643 final, 14 July 2021 (hereinafter ‘European Commission, Impact Assessment Report’), 14.

¹⁵ European Commission, ‘Proposal for a Regulation of the European Parliament and of the Council Establishing a Carbon Border Adjustment Mechanism’, COM(2021) 564 final, 14 July 2021 (hereinafter ‘European Commission, CBAM Proposal’).

¹⁶ European Commission, Impact Assessment Report (n 14) 5.

¹⁷ Since early September 2021, the price of EU emission allowances has been on the rise in anticipation of the heightened ambition of the EU ETS revision, among others. At the beginning of 2022, in particular, the price set new records at more than €90/ton. Todd Gillespie and Will Mathis, ‘Europe’s Carbon Prices Surge to Fresh Records on Tight Supply’ (Bloomberg, 2 February 2022) <<https://www.bloomberg.com/news/articles/2022-02-02/europe-s-carbon-price-surges-above-90-euros-to-record-high>> accessed 27 September 2022.

¹⁸ More specifically, importers of covered products would have to: (i) apply for authorisation to import and set up a CBAM account with competent authorities of the EU Member States (European Commission, CBAM Proposal (n 15), arts 4–5; (ii) submit a ‘CBAM Declaration’ by 31 May of each year indicating total, verified direct emissions embedded in their imports (ibid, arts 6–7); (iii) purchase ‘CBAM certificates’ at the weekly average price of emission allowances auctioned under the EU ETS (EUAs) (ibid, arts 20–21); and (iv) surrender ‘CBAM certificates’ to cover embedded emissions (ibid, art 22). See further Section 3.

While the mechanism intends to subject covered imports to a carbon price that is as close as possible to the carbon price imposed under the EU ETS, the proposal has reignited a longstanding controversy regarding the legality of the measure, as a unilaterally imposed trade measure giving rise to ‘territorial extension’ (and, accordingly, having coercive effect)¹⁹ under the rules of the World Trade Organization (WTO).²⁰ This debate is not new to the extent that the idea of imposing some form of border carbon adjustment (BCA) has repeatedly been advanced both within the EU and beyond as a potential antidote to asymmetrical carbon prices over the past 15 years.²¹ Arguably, however, the terms of the debate that developed (and continue to develop) out of the EU CBAM proposal²² elevate the discussion on whether and, if so, under which conditions BCAs may constitute a legally feasible and economically effective trade (and climate) policy instrument to a new level for three main reasons. First, the European Commission has unambiguously (although arguably not disingenuously) centred its CBAM narrative squarely on climate change by insisting on the mechanism being (primarily, at least) a carbon leakage avoidance measure.²³ Second, the CBAM proposal comes at a time when the international climate change regime has fully embraced a flexible approach informed by the principle of common but differentiated responsibilities and respective capabilities (CBDR-RC). Third, the CBAM is ‘no longer just a controversial hypothetical’;²⁴ rather, the Commission’s proposal includes detailed design features that can be dissected and analysed with regard to their

¹⁹ This article borrows the expression ‘territorial extension’ as meaning that ‘the application of a measure is triggered by a territorial connection but in applying the measure the regulator is required, as a matter of law, to take into account conduct or circumstances abroad’ from Joanne Scott, ‘Extraterritoriality and Territorial Extension in EU Law’ (2013) 64(1) *American Journal of Comparative Law* 87, 90. In the case of the EU CBAM, the territorial connection consists of the fact the measure is triggered by the importation of covered products into the territory of the EU.

²⁰ See, among others, Javier de Cendra, ‘Can Emission Trading Schemes Be Coupled with Border Tax Adjustments’ (2006) 15(2) *Review of European Community and International Environmental Law* 131; Reinhard Quick, “‘Border Tax Adjustments’ in the Context of Emission Trading: Climate Protection or ‘Naked’ Protectionism?” (2008) 3(5) *Global Trade and Customs Journal* 163; Ilaria Espa, ‘Action pour le climat et mesures commerciales unilatérales: les initiatives les plus récentes de l’Union européenne’ (2012) 12(3) *Revue Internationale de Droit Economique* 295; Henrik Horn and Petros Mavroidis, ‘To B(TA) or Not to B(TA)? On the Legality and Desirability of Border Tax Adjustments from a Trade Perspective’ (2011) 34(11) *The World Economy* 1911; Joost Pauwelyn, ‘Carbon Leakage Measures and Border Tax Adjustments under WTO Law’ in Geert Van Calster and Denise Prévost (eds), *Research Handbook on Environment, Health and the WTO* (Edward Elgar 2013) 448; Jennifer Hillman, ‘Changing Climate for Carbon Taxes. Who’s Afraid of the WTO?’ (German Marshall Fund of the United States 2013) <<https://scholarship.law.georgetown.edu/facpub/2030/>> accessed 27 September 2022; Kateryna Holzer, *Carbon-Related Border Adjustment and WTO Law* (Edward Elgar Publishing 2014); Joel P Trachman, ‘WTO Law Constraints on Border Tax Adjustment and Tax Credit Mechanisms to Reduce the Competitive Effect of Carbon Taxes’ (2017) 70(2) *National Tax Journal* 469; Alice Pirlot, *Environmental Border Tax Adjustments and International Trade Law* (Edward Elgar Publishing 2017); Mehling et al (n 11).

²¹ For an overview, see Section 2.2. Similarly to the EU, several other jurisdictions are also considering the imposition of BCAs either in connection to carbon pricing policies (e.g., Canada, the United Kingdom) or linked to other climate policies (e.g., United States). See Aaron Cosbey, ‘Principles and Best Practice in Border Carbon Adjustment: A Modest Proposal’ (International Institute for Sustainable Development 2021) 1.

²² The debate has evolved in parallel with the developments in the complex legislative process that followed the release of the European Commission’s proposal, and particularly the publication of the Draft Report of Mohammed Chahim, European Parliament Committee on the Environment, Public Health and Food Safety (ENVI) Rapporteur on the CBAM, which included significant departures from the Commission’s proposals: European Parliament (EP) ENVI Committee, ‘Draft Report on the proposal for a regulation of the European Parliament and of the Council establishing a carbon border adjustment mechanism, COM(2021)0564 – C9-0328/2021 – 2021/0214(COD), 21 December 2021. See, among others, Andrei Marcu, Mike Mehling and Aaron Cosbey, ‘Addressing “Crunchy Issues” in the EU CBAM: A Review of the ENVI Committee’s Rapporteur’s Draft Report (European Roundtable on Climate Change and Sustainable Transition (ERCST) 2021) <<https://ercst.org/wp-content/uploads/2022/01/20220110-Addressing-crunch-issues-in-CBAM-v5-final.pdf>> accessed 27 September 2022. See further Section 2.2.

²³ See further Section 3.1.

²⁴ This expression is borrowed from Cosbey (n 21) 1.

compatibility with relevant trade and climate rules to anticipate potential legal issues that could be raised by its entry into force.²⁵

In light of the foregoing, this paper aims at scrutinising the main anticipated design features of the CBAM proposed by the European Commission under both WTO rules and international climate change law. It discusses the extent to which the incorporation of climate-(in)consistent design choices might affect prospects of WTO compatibility. Accordingly, the paper is structured as follows. Section 2 first illustrates the logic behind BCAs more generally, having due regard to their (often multiple, yet not always distinguishable) rationale(s); it then gives an overview of past BCA proposals and the state of the current CBAM proposal. Section 3 zooms in on the main anticipated features of the CBAM proposed by the European Commission and discusses how they may fare under both WTO law and climate change law. This legal analysis is informed where appropriate by an economic assessment of the proposed design features in light of their expected economic effects. Section 4 discusses the main findings with a view to illustrating what are the main critical elements of the current CBAM proposals in light of WTO law and climate change law. Section 5 concludes.

2. Towards an EU CBAM: Rationale, History, and Latest Developments

2.1 Understanding the Logic behind BCAs

Border carbon adjustments are the climate change-connotated version of border tax adjustments (BTAs), that is, ‘fiscal measures which put into effect, in whole or in part, the destination principle’²⁶ according to which taxes are paid where products are consumed and not where they are produced.²⁷ The destination principle is essentially aimed at achieving ‘trade neutrality of domestic taxation’²⁸ in the absence of tax harmonisation, by means of extending a domestic levy on imports and rebating it for exports. Such an adjustment levels the playing field and, to the extent that it merely preserves the ‘competitive equality’ between domestic and foreign products, it has long been considered compatible with international trade rules.²⁹

In a world of asymmetric carbon prices and in anticipation of increasingly heterogeneous carbon constraints as allowed under the Paris Agreement, the concept of BTA has evolved into the concept of border *carbon* adjustment with a view to conceive of some (legally robust) form of adjustment mechanism that could also be linked to carbon pricing schemes different than an explicit tax, such as emissions trading systems.³⁰ The logic is similar to BTAs in that BCAs are considered a ‘promising

²⁵ Based on the Commission’s proposal, the EU CBAM would become effective on 1 January 2023 for a three-year transitional period. European Commission, CBAM Proposal (n 15) art 36. We should also mention here one elephant in the room. Methane is the second most important greenhouse gas after CO₂ in terms of its contribution to global warming. It accounted for approximately 30 percent of recent (2010–2019) warming according to the IPCC, while also contributing to respiratory deaths through ozone. Yet, Paris Agreement pledges generally do not include abatement of methane, and the European CBAM proposal discussed here also excludes it. The joint EU and the US Global Methane Pledge initiative (June 2022) is therefore an important step, beyond what happens with CBAM itself: Octavio Fernández-Amador et al, ‘Methane Emissions: Not just Some Other Guy’ (VoxEU, August 2022).

²⁶ GATT Report by the Working Party on Border Tax Adjustment, L/3464, BISD 18S/97 (2 December 1970), para 4. Value added taxes are typically informed by the destination principle.

²⁷ Paul Demaret and Raoul Stewardson, ‘Border Tax Adjustments under GATT and EC Law and General Implications for Environmental Tax’ (1994) 28(4) *Journal of World Trade* 5, 6.

²⁸ WTO, ‘Taxes and Charges for Environmental Purposes – Border Tax Adjustment – Note by the Secretariat’, WT/CTE/W/47 (2 May 1997), 6.

²⁹ *Ibid*; GATT Report by the Working Party on Border Tax Adjustment (n 26).

³⁰ There is a large body of legal literature on BCAs: see, among others, Roland Ismer and Karsten Neuhoff, ‘Border Tax Adjustment: A Feasible Way to Support Stringent Emission Trading’ (2007) 24(2) *European Journal of Law and Economics* 137; Pauwelyn (n 20) 448; Ludivine Tamiotti, ‘The Legal Interface Between Carbon Border Measures and Trade Rules’ (2011) 11(5) *Climate Policy* 1202; and the references cited above (n 20).

response’ to level uneven carbon constraints.³¹ This means that, in the case of BCAs, the trade neutrality aspects of the adjustment importantly serve a climate purpose, that is, the goal of reducing carbon leakage risks.³² In this respect, BCAs are often ‘presented as an innovative solution’.³³ They are trade instruments that are an alternative to domestic measures traditionally used to mitigate these risks, such as the granting of free allowances in the context of emission trading schemes like the EU ETS (or tax exemptions in the case of carbon taxes).³⁴ This is because such domestic instruments work by levelling *down* carbon pricing, whereas BCAs have the advantage of ‘level[ing *up*] carbon costs for foreign producers and maintain their application on domestic firms, except when they export their products abroad’.³⁵ Accordingly, countries could in theory keep ambitious climate policies generating strong carbon prices while at the same time achieving two intrinsically related sub-goals: (1) avoiding an ‘unfair’ loss of competitiveness for domestic enterprises; (2) exerting political pressure on ‘climate laggards’ to adopt similarly ambitious climate policies.³⁶

The ‘fairness’ logic inherent to the equalisation mechanism typical of BCAs has often been evoked as evidence of the ambivalence (to say the least) of BCAs as a genuine climate change instrument. Opponents have in particular argued BCAs represent sophisticated forms of ‘green protectionism’ aimed at preserving the competitiveness of domestic firms vis-à-vis foreign enterprises (and thus achieving an economically connoted goal) rather than actually serving climate goals.³⁷ Evidently, there is a built-in economic rationale at the basis of the ‘fair competition story’,³⁸ which inevitably informs the environmentally oriented purpose of avoiding carbon leakage. This is because carbon leakage risks only materialise if competitiveness concerns are not adequately addressed by the country imposing ambitious climate policies.³⁹ The same applies to the ‘climate leadership story’⁴⁰

³¹ Mehling et al (n 11) 433.

³² Susanne Dröge et al, ‘Tackling Leakage in a World of Unequal Carbon Prices’ (Climate Strategies 2009) <<https://climatestrategies.org/wp-content/uploads/2009/10/cs-leakage-final-230909.pdf>> accessed 27 September 2022; Organisation for Economic Co-operation and Development (OECD), ‘Climate Policy Leadership in an Interconnected World: What Role for Border Carbon Adjustments?’ (OECD 2020) 7–11.

³³ See Alice Pirlot, ‘Carbon Border Adjustment Measures: A Straightforward Multi-Purpose Climate Change Instrument?’ (2021) 33(4) *Journal of Environmental Law* 28.

³⁴ Roland Ismer, Karsten Neuhoff and Alice Pirlot, ‘Border Carbon Adjustments and Alternative Measures for the EU ETS. An Evaluation’, DIW Discussion Papers 1855 (German Institute for Economic Research 2020) <<https://www.econstor.eu/bitstream/10419/218976/1/1693291916.pdf>> accessed 27 September 2022.

³⁵ Pirlot (n 33) 29.

³⁶ Mehling et al (n 11) 441.

³⁷ See, among others, Quick (n 20); Peter Holmes, Tom Reilly and Jim Rollo, ‘Border Carbon Adjustments and the Potential for Protectionism’ (2011) 11(2) *Climate Policy* 883; Aaron Cosbey et al, ‘Developing Guidance for Implementing Border Carbon Adjustments: Lessons, Cautions, and Research Needs from the Literature’ (2019) 13(3) *Review of Environmental Economics and Policy*; Arvind P Ravikumar, ‘Carbon Border Taxes are Unjust’ (2020) *MIT Technology Review*; Joint Statement issued at the conclusion of the 30th BASIC Ministerial Meeting on Climate Change hosted by India (8 April 2021), para 19.

³⁸ This expression is borrowed from Pirlot (n 33) 4–7.

³⁹ For a thorough analysis of the (economic) mechanisms through which competitiveness concerns may lead to carbon leakage, see Mehling et al (n 11) 441, Pirlot (n 33) 4–7, and references cited therein. As aptly noted by Pirlot, the apparent contradiction between economic and climate-based narratives linked to BCAs is determined by the existence of ‘different views on the need for a global carbon price [:] those who accept that all economic activities – regardless of where they are located – should be subject to a uniform carbon price [view CBAMs] as helping to preserve’s countries ability to adopt ambitious climate policies [whereas] those who reject this assumption ... believe that countries, most specifically least developed and developing countries, should remain free to adopt a relatively lower carbon price, if they decide to adopt such a mechanism at all’. Pirlot (n 33) 7. Accordingly, the author accepts that under the ‘fair competition story’ BCAs aims at addressing carbon leakage risks. For a critical analysis of how BCAs ambiguously serve to reconcile ambitious climate ambitions and domestic political concerns by addressing the economic consequences of carbon pricing policies such as EU ETS, see Peter Chase and Rose Pinkert, ‘The EU’s Triangular Dilemma on Climate and Trade’ (German Marshall Fund of the United States 2021).

⁴⁰ This expression is again borrowed from Pirlot (n 33) 9–11.

inasmuch as carbon leakage risks can only be mitigated by combating free-riding through the ‘territorial expansion’ of ambitious carbon pricing policies.⁴¹

The apparent contradictions created by the complex interplay between climate and economic narratives linked to BCAs can thus be reconciled, at least in principle, by considering levelling the playing field and political leverage as the two ‘central functions’ of BCAs to ‘effectively address leakage’.⁴² Whether BCAs may practically work consistently with such stated goals, however, ultimately depends on whether they can lead to higher emission reduction levels than could have been achieved otherwise, or indeed whether they lead to the stated objective of emissions reductions at all.⁴³ This is ultimately an issue of design of each specific BCA, which bears fundamental relevance for the purposes of assessing such instruments from a legal perspective, as explained below.⁴⁴

2.2 Earlier Proposals

The CBAM proposal is the latest in a string of proposals put forward in the EU for the purposes of introducing a BCA in connection to the ETS in order to address carbon leakage concerns.⁴⁵ When the EU first shifted from the system of free allocation to auctioning in 2008, energy-intensive industries argued that they should continue to receive free allowances, claiming that the cost of buying allowances would lead to carbon leakage and loss of a competitive edge. These arguments resonated with European policymakers, who decided to prolong the allocation of free allowances to industries involved in international trade that were at risk of facing compliance costs above a certain threshold. Nevertheless, in the 2008 revision of the EU ETS Directive, BCAs emerged as an option. Before the proposal for a revised Directive was released, the European Commission circulated an informal proposal for a ‘Future Allowance Import Requirement’ – a measure that would have included importers of products from sectors covered by the ETS unless trading partners took comparable action to that of the EU.⁴⁶ The proposal also extended to exporters, who would have been able to receive rebates in the form of free allowances upon export. The calculation of the adjustment for imports would have been based on average European emissions for the covered goods, taking into account the level of free allocation. Although the measure never even found its way into the formal legislative proposal to amend the emissions trading directive, the revised ETS Directive introduced a provision listing the inclusion of importers as an option to be considered in light of the outcome of international negotiations.⁴⁷

BCAs re-emerged in European discussions in 2009, when the French government proposed a so-called ‘carbon inclusion mechanism’.⁴⁸ Under this proposal, importers would have been obliged to purchase allowances under the EU ETS. The measure would have either targeted the countries that

⁴¹ For a thorough discussion on extraterritoriality of unilateral climate change (trade) policy instruments such as BCAs, see Joanne Scott, ‘Unilateralism, Extraterritoriality and Climate Change’, in Daniel A Farber and Marjan Peeters (eds), *Climate Change Law* (Edward Elgar Publishing 2016) 167. Importantly, this narrative also relies on the assumption that there should be ‘an international minimum carbon price equivalent to the carbon price in place’ in the imposing country. Pirlot (n 33) 11.

⁴² Mehling et al (n 11) 441.

⁴³ Pirlot (n 33) 6.

⁴⁴ See Section 3.

⁴⁵ See Harro van Asselt and Thomas Brewer, ‘Addressing Competitiveness and Leakage Concerns in Climate Policy: An Analysis of Border Adjustment Measures in the US and the EU’ (2010) 38(1) *Energy Policy* 42; and Mehling et al (n 11) 448–451.

⁴⁶ Draft Commission Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/87/EC (10 December 2007), on file with authors.

⁴⁷ Directive 2009/29/EC of the European Parliament and of the Council Amending Directive 2003/87/EC so as to Improve and Extend the Greenhouse Gas Emission Allowance Trading Scheme of the Community [2008] OJ L140/63, art 10b(1).

⁴⁸ Government of France, ‘Non-Paper: Mechanism for the Inclusion of Importers in the EU Emissions Quota Trading Scheme’ (2008), on file with authors.

failed to participate in a future international climate agreement, or the goods coming from countries that had no comparable policies in place. In 2016, following the adoption of the Paris Agreement, France issued another proposal, this time focusing on the cement sector.⁴⁹ That same year, the European Parliament's Committee on the Environment, Public Health and Food Safety (ENVI) put forward a similar proposal, but it failed to secure the necessary votes.⁵⁰

One explanation as to why these BCA proposals did not gain traction in the EU policymaking process (notwithstanding the support by some Member States, such as France) relates to the political backlash against the inclusion of international aviation in the EU ETS. Frustrated with the lack of progress within the International Civil Aviation Organization on addressing greenhouse gas emissions from international aviation, the EU included international aviation emissions in its ETS in 2008.⁵¹ This measure would have covered emissions from all flights departing from or arriving to the EU from 2012 onwards. However, significant political resistance from other countries (including China, India, Russia, and the United States) led to the deferral of the enforcement of the legislation for non-European countries in 2012 and, later on, to the exclusion of international flights.⁵² While this experience may have delayed the pursuit of a BCA by EU policymakers, the situation changed when a new European Commission arrived on the scene in 2019.

2.3 CBAM History

When she was still the nominee for the European Commission President, Ursula von der Leyen already indicated she was interested in adopting a 'carbon border tax'.⁵³ She made good on this promise when the Commission published its EU Green Deal Communication at the end of 2019.⁵⁴ The Communication announced that the Commission

'will propose a carbon border adjustment mechanism, for selected sectors, to reduce the risk of carbon leakage. This would ensure that the price of imports reflect more accurately their carbon content. This measure will be designed to comply with World Trade Organization rules and other international obligations of the EU. It would be an alternative to the measures that address the risk of carbon leakage in the EU's Emissions Trading System.'⁵⁵

The Communication further suggested that the proposal would be forthcoming in 2021. This was indeed the case, when the Commission released the legislative proposal – along with a broad set of other proposals – on 14 July 2021.⁵⁶ These proposals all form part of the EU's 'Fit for 55' package,

⁴⁹ Government of France, 'Non-Paper: Carbon Inclusion Mechanism for the Cement Sector' (2016), on file with authors.

⁵⁰ European Parliament Committee on the Environment, Public Health and Food Safety, Report on the Proposal for a Directive of the European Parliament and of the Council Amending Directive 2003/87/EC to Enhance Cost-Effective Emission Reductions and Low-Carbon Investments (COM(2015)0337 – C8-0190/2015 – 2015/0148(COD)). See also Reuters, 'European Parliament Adopts Draft Reform of Carbon Market Post-2020' (15 February 2017) <<https://www.reuters.com/article/us-eu-carbon-idUSKBN15U110>> accessed 27 September 2022.

⁵¹ Directive 2008/101 of the European Parliament and of the Council of 19 November 2008 Amending Directive 2003/87/EC so as to Include Aviation Activities in the Scheme for Greenhouse Gas Emission Allowance Trading Within the Community [2008] OJ L8/3, art 25a.

⁵² See Kati Kulovesi, "'Make Your Own Special Song, Even if Nobody Else Sings Along": International Aviation Emissions and the EU Emissions Trading Scheme' (2011) 2(4) *Climate Law* 535; Antto Vihma and Harro van Asselt, 'The Conflict over Aviation Emissions: A Case of Retreating EU Leadership?' (Finnish Institute of International Affairs 2014).

⁵³ Megan Darby, 'Von der Leyen Offers 55% CO₂ Cuts by 2030 in Bid for EU Top Job' (ClimateHome, 15 July 2019) <<https://www.climatechangenews.com/2019/07/15/von-der-leyen-offers-55-co2-cuts-2030-bid-eu-top-job/>> accessed 27 September 2022.

⁵⁴ European Commission, *The European Green Deal* (n 13).

⁵⁵ *Ibid* 5 (footnote omitted).

⁵⁶ European Commission, *CBAM proposal* (n 15).

which is a set of legislative measures that aim to ensure the EU can achieve its goal of cutting greenhouse gas emissions by at least 55 percent by 2030.⁵⁷ Importantly, the CBAM proposal is closely connected to the proposal to revise the EU ETS.⁵⁸ Specifically, the decision on the phasing out of free allowances – which, as discussed in Section 3.3, has direct implications for the design of the CBAM, is taken as part of the revision of the EU ETS.

The Commission proposal was the start of deliberations within both the European Council and the European Parliament. Within the Council, under the leadership of the French Presidency, an agreement was reached on a ‘general approach’.⁵⁹ However, the Council also indicated that to proceed to negotiations with the European Parliament, it would be important to make progress on the revision of the EU ETS, again underlining the interconnectedness of the two proposals.⁶⁰ The European Parliament already sought to set out its main positions on the CBAM even before the Commission proposal was published, with the ENVI Committee publishing an ‘own initiative’ report released in February 2021,⁶¹ and the Parliament adopting a resolution on ‘a WTO-compatible EU carbon border adjustment mechanism’ on 10 March 2021.⁶² Within the Parliament, following the Commission proposal ENVI Committee member Mohammed Chahim of the Netherlands was appointed Rapporteur. His draft report from December 2021 sought significant changes in the Commission proposal, suggesting an expanded scope for the measure, calling for a speedier phase out of free allowances, as well as support for least developed countries (LDCs).⁶³ These changes were by and large approved in a vote by the ENVI Committee on 17 May 2022,⁶⁴ although they were to a certain extent recalibrated following the plenary vote in the Parliament on 22 June 2022.⁶⁵ ‘Trilogue’

⁵⁷ See European Commission, “‘Fit for 55’”: Delivering the EU’s 2030 Climate Target on the Way to Climate Neutrality’ COM(2021) 550 final, 14 July 2021. The legislative proposals can be found at <https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/delivering-european-green-deal_en#documents> accessed 27 September 2022.

⁵⁸ European Commission, Revision of EU ETS Proposal (n 14). Within the Commission, different Directorates-General (DGs) are responsible for the CBAM and EU ETS files, with DG Climate Action (Clima) leading on the revision of the EU ETS, and DG Taxation and Customs Union (Taxud).

⁵⁹ Council of the European Union, ‘Draft regulation of the European Parliament and of the Council Establishing a Carbon Border Adjustment Mechanism – General Approach’, ST 7226/22 (15 March 2022) <<https://data.consilium.europa.eu/doc/document/ST-7226-2022-INIT/en/pdf>> accessed 27 September 2022. For a discussion, see Freshfields Bruckhaus Deringer LLP, ‘CBAM: The Council’s Position on the Commission’s Proposal’ (13 April 2022) <<https://www.lexology.com/library/detail.aspx?g=2bbe7857-179a-4816-aab1-4e73451af625>> accessed 27 September 2022.

⁶⁰ Council of the European Union, ‘Regulation Establishing a Carbon Border Adjustment Mechanism – General Approach’, ST 6978/22 (15 March 2022) <<https://data.consilium.europa.eu/doc/document/ST-6978-2022-INIT/en/pdf>> accessed 27 September 2022.

⁶¹ EP ENVI Committee, ‘Report: Towards a WTO-Compatible EU Carbon Border Adjustment Mechanism’, 2020/2043(INI), <https://www.europarl.europa.eu/doceo/document/A-9-2021-0019_EN.html> accessed 27 September 2022.

⁶² European Parliament, ‘Resolution of 10 March 2021 towards a WTO-compatible EU carbon border adjustment mechanism’ 2020/2043(INI), <https://www.europarl.europa.eu/doceo/document/TA-9-2021-0071_EN.html> accessed 27 September 2022.

⁶³ EP ENVI Committee, ‘Draft Report on the proposal for a regulation of the European Parliament and of the Council establishing a carbon border adjustment mechanism (COM(2021)0564 – C9-0328/2021 – 2021/0214(COD))’ (21 December 2021), <https://www.europarl.europa.eu/doceo/document/ENVI-PR-697670_EN.pdf> accessed 27 September 2022.

⁶⁴ EP ENVI Committee, ‘Compromise Amendments 1-15 to Draft Report on the proposal for a regulation of the European Parliament and of the Council establishing a carbon border adjustment mechanism (COM(2021)0564 – C9-0328/2021 – 2021/0214(COD))’ (12 May 2022) <https://www.europarl.europa.eu/meetdocs/2014_2019/plmrep/COMMITTEES/ENVI/DV/2022/05-16/Final_Comp_CBAM_13.05_EN.pdf> accessed 27 September 2022. For a comment, see Simon Pickstone, ‘Environment Committee Approves Major Changes to CBAM and ETS Proposals’ (ENDS Europe, 17 May 2022).

⁶⁵ European Parliament, ‘P9_TA(2022)0248Carbon border adjustment mechanism*** I:Amendments adopted by the European Parliament on 22 June 2022 on the proposal for a regulation of the European Parliament and of the Council establishing a carbon border adjustment mechanism (COM(2021)0564 – C9-0328/2021 – 2021/0214(COD)) (Ordinary

negotiations have since commenced between the Parliament, Council, and Commission, and are expected to conclude in the autumn of 2022.

3. Dissecting the CBAM Proposal in Light of WTO Law and Climate Change Law

Although the legislative process is still underway, the EU CBAM is likely to become soon the first BCA adopted by a WTO Member that is also a Party to the Paris Agreement.⁶⁶ While it remains to be seen whether the main constitutive elements of the European Commission's proposal will be retained in the final CBAM regulation, or whether – and, if so, to which extent – any of the amendments put forward by the ENVI Committee will be incorporated therein, the proposal already contains relatively detailed information on a number of design features that will arguably prove critical in assessing the measure's compatibility with WTO law and climate change law,⁶⁷ having due regard to any relevant interactions between the two. The final design features will also prove crucial for the effectiveness of the measure. The following analysis illustrates potential strengths and weaknesses of the CBAM proposal, as it stands, from a legal perspective while bearing in mind the economic underpinnings of each specific design choice.

3.1 Objective

Ever since the EU introduced the idea of a carbon border adjustment mechanism, it has been extremely careful in presenting it as a climate measure meant primarily to prevent carbon leakage linked to a tightening ETS.⁶⁸ As per the CBAM proposal, in particular, the 'overarching objective' of the mechanism is 'addressing the risk of carbon leakage in order to fight climate change by reducing [greenhouse gas] emissions in the Union and globally'.⁶⁹ The European Commission admits that this goal requires that it pursue a number of 'specific objectives'. Among them, importantly, is the need to ensure that EU products and imported products are on equal footing in terms of EU ETS carbon pricing.⁷⁰ In the view of the Commission, however, the fair competition logic informing the CBAM is instrumental to achieving its climate purpose to the extent that it implies nothing more than the equalisation of carbon costs.⁷¹ The Commission also acknowledges that the CBAM may lead to 'ancillary effects', however.⁷² Specifically, it suggests that the CBAM can be a 'climate tool to push third countries to adopt more stringent climate measures', and a tool to raise revenues for the EU budget.⁷³ While the Commission is careful in specifying that revenue raising does not play any role

legislative procedure: first reading) <https://www.europarl.europa.eu/doceo/document/TA-9-2022-0248_EN.pdf> accessed 27 September 2022.

⁶⁶ As mentioned in Section 2.2, the EU had already implemented a BCA-like instrument when it extended its ETS to international flights back in 2008. The measure was, however, removed shortly thereafter and way before the Paris Agreement was concluded. For a complete overview, and a discussion of the potential WTO problems entailed by such a measure, see Espa (n 20). Some comparable schemes already exist at the sub-national level. This includes the California BCA scheme. The California effort to tax carbon contained in imported electricity also provides a lesson in the challenges to assigning emissions to specific trade flows: Meredith Fowlie, Claire Petersen, and Mar Reguant, 'Border Carbon Adjustments When Carbon Intensity Varies across Producers: Evidence from California' (2021) 111 *American Economic Association Papers and Proceedings* 401.

⁶⁷ Importantly, many details will have to be worked out in at a later stage, for instance through delegated acts. Nevertheless, the proposal is largely informative of the approach taken by the Commission as to the main design choices relevant to assess the CBAM's legal stance under trade and climate change rules.

⁶⁸ For a recollection of the EU statements from the announcement of the Political Guidelines for the next European Commission 2019-2024 by the then Commission-President designate, Ursula von der Leyen, to the CBAM proposal and its accompanying impact assessment, see Quick (n 10) 552–553.

⁶⁹ European Commission, CBAM Proposal (n 15) 15; see also art 1.

⁷⁰ *Ibid* 21.

⁷¹ *Ibid*.

⁷² European Commission, Impact Assessment Report (n 14) 15. See also European Commission, CBAM Proposal (n 15) recital 12.

⁷³ *Ibid*; see also European Commission, CBAM Proposal (n 15) recital 12.

in the design of CBAM, it emphasises that the political leveraging function is intended to ‘strengthen the joint climate action needed by all of the Parties of the Paris Agreement’ to meet the 1.5°C/2°C goal.⁷⁴ In this respect, the ‘climate leadership story’ espoused by the Commission is at least formally consistent with the carbon leakage narrative.⁷⁵

As noted by James Bacchus, however, ‘these EU statements, in and of themselves, have no legal significance’.⁷⁶ In other words, it is not possible to reach any conclusion as to the legality of the CBAM by relying exclusively on its stated underlying objective. Rather, the legality of the CBAM is to be determined by assessing whether its specific design features are consistent with its carbon leakage narrative. This importantly not only applies to WTO law also to climate change law. As to the former, proving such consistency is important at two levels. First, a CBAM that is carefully designed to level the playing field in sectors that are exposed to carbon leakage, that is, a measure that does not go beyond the equalisation logic for those sectors, may be considered compatible with the basic WTO rules on non-discrimination, which are meant to preserve the competitive equality between domestic and imported products (national treatment principle) and among foreign products (most-favoured nation clause) under the General Agreement on Tariffs and Trade (GATT).⁷⁷ Second, a sufficiently substantiated climate-based rationale may strengthen a defence under the general exceptions available under Article XX GATT were the CBAM found to violate basic non-discrimination rules.⁷⁸ As to the latter, it is worth noting that, even though neither the Paris Agreement nor the United Nations Framework Convention on Climate Change (UNFCCC) prescribe any specific mitigation measures, or require Parties to address emissions outside their jurisdictions, achieving the 1.5°C/2°C goal arguably requires tackling carbon leakage risks to preserve the effectiveness of domestic climate policies.

In light of the foregoing, two main considerations on the potential legal relevance of presenting the CBAM as a climate measure can be offered at this stage. First, prospects of WTO compatibility could increase only insofar as carbon leakage can be shown to be a real risk. And second, this may also apply provided that the CBAM has the ability to alleviate or prevent ascertained carbon leakage risks.

⁷⁴ European Commission, CBAM Proposal (n 15) 15.

⁷⁵ See Section 2.1. As noted by Pirlot, in particular, ‘[c]arbon leakage risks would disappear under the climate leadership story if, thanks to the CBAMs, all countries end up adopting the EU ... carbon price’. Pirlot (n 33) 11.

⁷⁶ James Bacchus, ‘Legal Issues with the European Border Carbon Border Adjustment Mechanism’ (Cato Institute 2021) 4.

⁷⁷ See arts III and I of the General Agreement on Tariffs and Trade 1994 (adopted 15 April 1994, entered into force 1 January 1995) 1867 UNTS 187, respectively. For a more detailed overview, see Section 3. It is worth noting at this stage that the purpose of the measure does not play a role for assessing the compatibility of a measure with the non-discrimination principle. It is clear, however, that if a measure aims at addressing carbon leakage risks it should be based on a preliminary assessment of which industries are exposed to significant carbon leakage risks with a view to targeting the right sectors in the first place. Once the targeted sectors are identified, the non-discrimination principle requires that the CBAM be applied to foreign industries in the covered sectors in a way that does not go beyond the equalisation logic (e.g., those industries cannot be imposed a carbon cost that is higher than the cost imposed on targeted EU firms). Needless to say, a CBAM may also cover more sectors than those that are exposed to carbon leakage risks and still be WTO-proof if it can be shown that it does not discriminate against and among foreign products. Should this not be the case, however, the measure could very unlikely seek justification under the general exceptions as a climate measure addressing carbon leakage risks.

⁷⁸ Andrei Marcu et al, ‘Guide to the European Carbon Border Adjustment Mechanism’ (ERCST 2021) 13. Importantly, there is no specific climate-based exception under WTO law. Article XX of the GATT, however, protects legitimate public policy goals that could be reconciled with the need to tackle climate change: otherwise WTO-inconsistent measures may in particular seek justification to the extent that they are ‘necessary to protect human, animal or plant life or health’ as per Article XX (b) or ‘relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption’ as per Article XX (g). In either case, the measure should furthermore 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’ as per the *chapeau* of Article XX.

As to the former consideration, although evidence is still mixed as to magnitude of leakage rates, and with significant discrepancies between *ex-ante* estimations and *ex-post* analyses,⁷⁹ existing studies converge in finding that risks could be high enough for those carbon (energy)-intensive sectors that are heavily exposed to international trade.⁸⁰ From this perspective, the European Commission proposal importantly selects only a few sectors which are exposed to the ‘highest risk of carbon leakage’ due to their carbon intensity *and* trade intensity.⁸¹ The rationale behind this choice is that a handful of sectors (cement, steel, electricity, aluminium, fertilisers) are responsible for the majority of greenhouse gas emissions and therefore they are at carbon leakage risk due to their emission costs under the ETS.⁸² As to the latter consideration, estimating the effectiveness of a CBAM in counteracting leakage is an extremely difficult economic exercise, which again may lead to different results depending on a number of variables and on the assessment method itself.⁸³ Existing studies, however, have shown that ‘a majority of leakage reduction benefits can already be obtained when a [CBAM] is applied to major energy intensive and trade exposed sectors’.⁸⁴ With specific reference to the EU ETS in particular, targeting a few ‘significant emitters’ under a CBAM has long been recognised as ‘the most economically efficient option to reduce leakage’.⁸⁵ The Commission itself explains that the correspondence between the sectoral ambit of highest carbon leakage evidence and the CBAM’s sectoral coverage is aimed at delivering ‘the highest environmental impact at relatively low administrative effort’.⁸⁶ Therefore, choosing a narrow sectoral coverage may arguably strengthen the link between the CBAM and its stated climate purpose also in view of an Article XX GATT-based defence.⁸⁷ How narrow the CBAM scope should be to attest to genuine carbon leakage purposes, however, is an open issue. Allegedly espousing the same carbon leakage logic, the European Parliament advocates for a broader coverage including, in particular, organic chemicals, hydrogen, and polymers ‘given their carbon and trade intensity’.⁸⁸ In the view of the ENVI Committee Rapporteur, in particular, expanding the scope of the CBAM is admittedly going to require ‘further technical work’ but is consistent with the goal of endowing the CBAM ‘with the highest possible ambition from the beginning to ensure that the free allowances are phased-out as soon as possible’.⁸⁹

In conclusion, the EU CBAM can be generally considered to be firmly anchored in a solid climate narrative to the extent that it responds to real carbon leakage risks and that it targets sectors that are exposed to such risks to the highest degree (thus increasing the chance of effectively counteracting

⁷⁹ For a detailed overview of the economic literature on carbon leakage see Mehling et al (n 11) 444–445. The authors, in particular, note that ‘empirical *ex post* analyses have confirmed the existence of leakage, although typically at lower rates.’ (ibid 445). They however note that, to some extent, ‘the modest leakage observed to date is owed to the low ambition of current climate policies, and the fact that sectors considered vulnerable to leakage have generally been protected through various safeguards. As countries heterogeneously increase the ambition of their domestic policies [as it arguably occurs with the EU Fit for 55 package], leakage may rapidly emerge as a more serious problem’ (ibid). See also Quick (n 10) 552 and references cited therein.

⁸⁰ Ibid; see also Cosby (n 21) 1.

⁸¹ In other words, the Commission has proposed to exclude sectors that are on the ‘significant risk of carbon leakage’ list merely due to their trade intensity. European Commission, CBAM proposal (n 15) 84.

⁸² Ibid ‘Annex 7: Section of Sectors’.

⁸³ An extensive economic literature review is provided in Mehling et al (n 11) 446–447.

⁸⁴ Ibid 447 and references cited therein.

⁸⁵ Ibid, citing, in particular, Stéphanie Monjon and Philippe Quirion, ‘Addressing Leakage in the EU ETS: Border Adjustment or Output-Based Allocation’ (2011) 70(11) *Ecological Economics* 1957.

⁸⁶ European Commission, CBAM Proposal (n 15) 84.

⁸⁷ Similarly, see also Mehling et al (n 11) 448.

⁸⁸ European Parliament (n 22) 81. Importantly, the Parliament has voted in favour of a broader sectoral coverage in the plenary of 22 June 2022: European Parliament (n 65) Amendment 175 (Annex I of the Proposal for a regulation).

⁸⁹ European Parliament (n 22) 81. Such a stated goal is particularly important for it has been noted that ‘due to the particularities of the sectors proposed for inclusion, the instrument as currently put forward ... is unlikely to provide the requisite protection against leakage for these sectors as the cost of carbon increases, which may in turn necessitate other forms of protection’. See Marcu, Mehling and Cosby (n 22) 3.

them). Whether the CBAM is a legitimate climate response, however, depends on its specific design. The following sections will thus perform an analysis of the main proposed features of the CBAM, as proposed by the European Commission, paying due regard to whether they are sufficiently informed by its stated climate purpose.

3.2 Exclusion of Exports

Under the European Commission proposal, the CBAM will apply to imports coming into the EU but will not be extended to exports.⁹⁰ In the process of developing its proposal, the European Commission was called upon to include export rebates into the scheme by industry stakeholders concerned about their competitiveness in foreign markets.⁹¹ The option was however discarded, arguing 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 and further risk to create frictions with major trade partners due to concerns regarding compatibility with WTO obligations’.⁹² The topic of export rebates resurfaced prominently in discussions at the European Parliament so that, contrary to what was agreed within the ENVI Committee, the amendments adopted in the first reading by the plenary vote on 22 June 2022 include a specific proposed provision on export rebates.⁹³ According to the Parliament’s proposed amendment: (1) CBAM-covered products produced in the EU ‘for export in third countries without carbon pricing mechanisms similar to the EU ETS’ will continue to receive free allowances,⁹⁴ and (2) the Commission will present a report to the European Parliament and the Council on the effects of the EU ETS and CBAM on the production of covered products destined for export and on the developments of global emissions by December 2025, including an assessment of the WTO compatibility of export rebates taking the form of free allowances for EU exporters and, where appropriate, accompany that report with a legislative proposal on the inclusion of export adjustment mechanisms into the CBAM ‘in a way that is WTO compatible’ by 31 December 2026,⁹⁵ assessing in particular potential options for so-called ‘green export rebates’.⁹⁶

The caution surrounding the topic of export rebates reflects, on the one hand, the intention to show genuine commitment towards the carbon leakage narrative underlying the CBAM and, on the other hand, the awareness of the intricacies of WTO law. As to the former, at issue is in particular whether the trade neutrality logic informing the CBAM could hold with respect to exports or rather ‘destroy the very idea of the strict domestic climate regulation’.⁹⁷ Including adjustments on exports may provide an incentive for EU producers to export carbon-intensive products and thus discourage emission reductions in export-oriented sectors, thereby contradicting the climate purpose of the CBAM.⁹⁸ At the same time, however, excluding exports may reduce the CBAM’s ability to counteract carbon leakage to the extent that cleaner domestic products are replaced by dirtier foreign products.⁹⁹ While evidence remains mixed as to whether and, if so, to which extent the inclusion of

⁹⁰ European Commission, CBAM Proposal (n 15) art 2.1; Annex 1.

⁹¹ European Commission, ‘Summary Report: Public Consultation on the Carbon Border Adjustment Mechanism (CBAM)’ (5 January 2021) <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12228-EU-Green-Deal-carbon-border-adjustment-mechanism-/public-consultation_en> accessed 27 September 2022.

⁹² European Commission, Impact Assessment Report (n 14) 42.

⁹³ European Parliament (n 65) Amendment 262 (Article 31, para 1b (new)).

⁹⁴ For more details on how such proposal would intersect with the proposal for a phasing out of free allocation in the EU ETS more generally see below, Section 3.3.

⁹⁵ The Commissions’ report shall also assess the compatibility of the export-conditioned free allocation option experimented during the transitional phase. Ibid.

⁹⁶ That is, the possibility to include export adjustment mechanisms for installations belonging to the 10 percent most efficient installations as laid down in Article 10a of Directive 2003/87/EC. Ibid.

⁹⁷ Quick (n 10) 555.

⁹⁸ Holzer (n 20) 204–205; Mehling et al (n 11) 471; Quick (n 10) 556.

⁹⁹ Stuart Evans et al, ‘Border Carbon Adjustments and Industrial Competitiveness in a European Green Deal’ (2021) 21(3) *Climate Policy* 307; see also Frédéric Branger and Philippe Quirion, ‘Would Border Carbon Adjustments Prevent

exports may compromise the environmental effectiveness of a CBAM, existing literature seems divided between scholars suggesting that ‘most of the benefits should even accrue under a system limited to imports’¹⁰⁰ and those arguing that a measure imposed on both imports and exports would better address carbon leakage risks.¹⁰¹

In light of this uncertainty, the choice of conditioning the inclusion of (different potential options for) export adjustment mechanisms after the CBAM transitional phase to an assessment of WTO compatibility¹⁰² seems prudently informed by potential WTO constraints arising out of the GATT and the Agreement on Subsidies and Countervailing Measures (ASCM), respectively. With respect to the GATT, the ambiguity of rebating exports as to its overall effects on the ability of the CBAM to address carbon leakage may weaken the prospects for successful justification under Article XX GATT in two respects. First, to the extent that including adjustments on exports undermines the environmental effectiveness of a CBAM on imports, it might arguably make it more difficult to prove that such measure is ‘*necessary* to protect human, animal or plant life or health’ as per Article XX (b) or ‘*relating to* the conservation of exhaustible natural resources’ as per Article XX (g), as the ends-means relationship between levelling the playing field and counteracting carbon leakage is less clear.¹⁰³ Second, a CBAM including export rebates might be considered to amount to ‘arbitrary or unjustifiable discrimination’ under the *chapeau* of Article XX to the extent that rebates (in the form of free allocation) are granted upon export to third countries ‘without carbon *pricing* mechanisms *similar to the EU ETS*’.¹⁰⁴

Furthermore, applying a CBAM to exports may also pose problems under the ASCM. This depends on whether export rebates could, first, be deemed to constitute a ‘subsidy’ within the meaning of the

Carbon Leakage and Heavy Industry Competitiveness Losses? Insights from a Meta-Analysis of Recent Economic Studies’ (2014) 99 *Ecological Economics* 29. Along the same lines, Pirlot notes that ‘maybe counterintuitively, adjustments on exports are not necessarily contrary to the environmental objective of CBAMs when this objective is defined by reference to the mitigation of climate leakage risks (as under the fair competition story)’. She in fact explains that ‘[i]n the absence of CBAMs on exports, EU products could become non-competitive in foreign markets. This could lead to higher demand for products from jurisdictions with no climate policies, which could translate to higher levels of greenhouse gas emissions at the global level’. Pirlot (n 33) 44. Marcu and colleagues recently found evidence pointing to the need to impose an export adjustment under the CBAM as ‘both a political and environmental imperative’ to address the ‘export-related leakage channel’. Andrei Marcu et al, ‘Border Carbon Adjustment in the EU: Treatment of Export in the CBAM’ (ERCST 2022) 23.

¹⁰⁰ Mehling et al (n 11) 448, citing Christoph Böringer, Edward J Balistreri and Thomas Rutherford, ‘The Role of Border Carbon Adjustment in Unilateral Climate Policy: Overview of an Energy Modeling Forum Study (EMF 29)’ (2012) 34(S2) *Energy Economics* S97; and Carolyn Fischer and Alan K Fox, ‘Comparing Policies to Combat Emissions Leakage: Border Carbon Adjustments versus Rebates’ (2012) 64(2) *Journal of Environmental Economics and Management* 199.

¹⁰¹ See, for all, Roland Ismer, Karsten Neuhoff and Alice Pirlot, arguing that a climate consumption charge applied in connection to a CBAM on imports and exports, and in parallel with the EU ETS as it is, could ensure that EU exporters would remain subject to a carbon price incentive (‘Border Carbon Adjustments and Alternative Measures for the EU ETS’, DIW Berlin Discussion Paper No. 1855 (DIW March 2020) <https://www.diw.de/documents/publikationen/73/diw_01.c.743698.de/dp1855.pdf> accessed 27 September 2022).

¹⁰² Importantly, during the transitional phase (2023–2025), there will not be a financial adjustment. European Commission, CBAM Proposal (n 15) art 36 and proposed amendments by the European Parliament (n 65).

¹⁰³ While the necessity requirement under Article XX (b) GATT and the relatedness requirements under Article XX (g) GATT imply formally different tests, they ultimately aim at establishing whether a(n otherwise-inconsistent) measure is genuinely and reasonably related to its legitimate policy objective. For a more detailed overview, see Peter Van den Bossche and Werner Zdouc, *The Law and Policy of the World Trade Organization* (Cambridge University Press 2021) 557–564 and 573–578. For an analysis of both tests as they could be applied to border carbon adjustments, see Holzer (n 20) 151 ff; Gary Hufbauer, Steve Charnovitz and Jisun Kim, *Global Warming and the World Trading System* (Peterson Institute for International Economics 2009) 49–52; Mehling et al (n 11) 464–467.

¹⁰⁴ For a more detailed analysis of the potential problems raised by the choice to credit *explicit* carbon pricing only within the CBAM proposal under WTO law and, in particular, under the *chapeau* requirements of Article XX GATT, see Section 3.6. For an analysis of the legal constraints posed by the *chapeau* of Article XX GATT, see Hufbauer, Charnovitz and Kim (n 103) 69 and Mehling et al (n 11) 570.

Agreement. As per the exclusion clause contained in footnote 1 to the ASCM, ‘the exemption of an exported product from duties or taxes borne by the like product when destined for domestic consumption, or the remission of such duties or taxes in amounts not in excess of those which have accrued, shall not be deemed to be a subsidy’.¹⁰⁵ This means that, were the EU ETS considered an indirect tax, export rebates could in principle be admitted to the extent that they do not lead to overcompensation for EU producers. Whether the inclusion of an export adjustment mechanism could fall within the remit of this provision remains uncertain, however, given that the obligation to purchase EUAs for EU ETS installations could arguably neither be equated to a ‘tax’ due to market-based fluctuations in the prices of allowances¹⁰⁶ nor be considered an ‘indirect’ tax given that the ETS costs are imposed on process emissions rather than on products as such.¹⁰⁷ Even considering this argument would fly, furthermore, there seem to be a relatively high chance that export rebates could result to be ‘in excess’ of taxes accrued to ‘like’ products when sold in the EU market, as the complexities entailed into the calculation of the ETS-induced costs make overcompensation scenarios very likely.¹⁰⁸

To the extent that export rebates are not covered by footnote 1 to the ASCM, the issue boils down as to whether they can qualify as a subsidy within the meaning of Article 1¹⁰⁹ and, in the affirmative, whether they may be prohibited as subsidies ‘contingent ... upon export performance’ under Article 3 ASCM. While the subsidy determination would ultimately depend on the exact form that the export adjustment mechanism would take,¹¹⁰ the inclusion of free allocation granted to EU installations upon export that the European Parliament has proposed could likely lead to the determination of the existence of a subsidy and, in particular, of an export subsidy as prohibited under the ASCM.¹¹¹

Finally, as regards climate change law, neither the UNFCCC nor the Paris Agreement contain rules that are specifically relevant to assessing the compatibility of including adjustments on exports to a CBAM. Similarly to what discussed above, however, it could be argued that, to the extent that rebates are granted upon exportation towards countries without explicit carbon pricing policies, the scheme could be considered ‘a means of arbitrary or unjustifiable discrimination or a disguised restrictions on international trade’ as per Article 3(5) UNFCCC.¹¹² Failing to deliver on the main overarching

¹⁰⁵ Footnote 1 to the ASCM aligns with art XVI of GATT 1994 (*Ad Note* to art XVI).

¹⁰⁶ See further Section 3.5.

¹⁰⁷ Marcu et al (n 99) 13.

¹⁰⁸ As noted by Marcu et al, *ibid*, the ETS-induced cost is ‘the variable market price of allowances purchased at auction or in the secondary market, typically in multiple individual transactions’: *ibid*. On the issue raised by the concept of likeness when it comes to embedded carbon emissions, which calls in the vexed question of non-product-related processes and production methods, see Section 3.5.

¹⁰⁹ This would require that they be considered to amount to a ‘financial contribution’ conferring a ‘benefit’ to the recipient. For more details, see Van den Bossche and Zdouc (n 103) 776–783 and 787–794.

¹¹⁰ For a detailed overview of different design options for export rebates, and how they would fare under ASCM provisions, see Marcu et al (n 99) 17. Irrespective of the specific design of an export adjustment under the CBAM, implementation challenges remain. For instance, to the extent that rebates become fully part of the CBAM, they should be applied to processing and re-export of imports (for example constituent chemicals) as well. This would practically imply a move away from targeting carbon in European production and closer to targeting carbon in final European consumption. Another challenge relates to the fact that, in the absence of a negotiated and enforceable scheme for assigning emissions and carbon costs across firm activities (for example where the carbon intensity of production may vary across plants), the effectiveness of the scheme may be undermined. This second challenge is not unique to the question of export adjustments, but also applies to the appropriate determination of rates for import adjustments. We refer the reader again to the California experience with applying BCAs to imported electricity. See Fowlie et al (n 66).

¹¹¹ Marcu et al (n 99) 14–15.

¹¹² Article 3(5) UNFCCC borrows language from the *chapeau* of Article XX GATT. Although it is true that, as noted by Mehling et al (n 11), ‘it cannot be assumed that the relevant analysis for Article XX GATT would equally apply to this provision’ (472), the provision arguably requires that ‘unilateral’ measures are genuinely ‘taken to combat climate change’ (art 3(5) UNFCCC). At the same time, a measure that contradicts the spirit of the UNFCCC and the Paris Agreement is arguably less likely to pass the *chapeau* test under Article XX GATT.

objective to limit the increase in global average temperature ‘in line with the Paris Agreement’, the measure could also arguably be considered, more generally, to contradict the spirit of the Agreement and, in particular, compromise efforts towards its temperature goals.¹¹³

3.3 Phasing out of Free Allocation

Although the CBAM was originally presented as an alternative to the existing system of free allocation of EU ETS allowances,¹¹⁴ the European Commission proposal envisages them operating side by side even after the pilot phase (2023–2025) and over a 10-year time period (2026–2035), with CBAM being gradually phased in while free allocation is gradually phased out (by 10% each year).¹¹⁵ The coordination between the two mechanisms has proved one of the most contentious features of the CBAM alongside the issue of export rebates. The ENVI Committee first recommended a ‘speedier phase out of free allowances’ by 2028 for all covered sectors (except for cement, for which it envisaged free allocation to expire in 2025 due to the lower trade intensity of the sector).¹¹⁶ This position was then softened with a proposed 2025–2030 phase-down schedule according to which free allocation would be reduced gradually based on a ‘CBAM factor’ of 100% in 2023–2024, 90% in 2025, 80% in 2026, 70% in 2027, 50% in 2028, 25% in 2029, reaching 0% in 2030.¹¹⁷ Ultimately, the specific amendment adopted by the plenary on 22 June 2022 provides for a further extension of the phase-down schedule so that free allocation will be gradually reduced over 2027–2032 according to a CBAM factor of 93% in 2027, 84% in 2028, 69% in 2029, 50% in 2030, 25% in 2031, reaching 0% in 2032.¹¹⁸

While the choice to maintain free allocation of EU ETS allowances reflects the need to ‘ensure a prudent and predictable transition for businesses and authorities’,¹¹⁹ it would arguably translate into EU-based industries being granted ‘double protection’ if matched with the CBAM.¹²⁰ On the one hand, they would (at least partially) be exempted from the costs they would otherwise incur because of the EU ETS. On the other hand, they would benefit from competing in the EU market against foreign producers on which the CBAM imposes a cost equal to the embedded emissions in their imports.¹²¹

This double protection feature potentially compromises WTO compatibility prospects for two main reasons. First, it may increase the chances that a CBAM be considered to violate the national treatment principle under Article III GATT, which protects the competitive opportunities of foreign products vis-à-vis domestic like products.¹²² This is because it would arguably make it more difficult

¹¹³ Along these lines, see Pirlot (n 33) 33. See also European Commission, CBAM Proposal (n 15) recital 9.

¹¹⁴ European Commission, ‘The European Green Deal’ (n 13) 5. See also European Commission, Impact Assessment Report (n 13) 5.

¹¹⁵ European Commission, CBAM Proposal (n 15) art 31.

¹¹⁶ See EP ENVI Committee (n 22) Proposed amendment 105.

¹¹⁷ See EP ENVI Committee (n 64) Compromise amendment 12, art 31, para 1a.

¹¹⁸ See European Parliament (n 65) Amendment 262 (Article 31, para 1a (new)).

¹¹⁹ European Commission (n 15) explanatory memorandum 10–11.

¹²⁰ See, among others, Bacchus (n 76) 4, who also notes that ‘the free emissions allowances currently granted to domestic producers by the EU through the ETS are arguably already illegal’ under ASCM rules (ibid).

¹²¹ Along the same lines, the Draft Report of the EP ENVI Committee states: ‘The CBAM is a carbon leakage measure. To ensure WTO-compatibility and avoid double protection it must therefore replace the free allocation of allowances, which is the current carbon leakage measure within the EU ETS’. See EP ENVI Committee (n 22), justification for amendment no. 105.

¹²² This is assuming the CBAM would qualify as an *internal* measure, that is, either an internal tax adjustable at the border as per Article III:2 GATT (in combination with Article II:2(a) GATT) or an internal regulatory measure as per Article III:4 GATT: for an overview, see Joost Pauwelyn and David Kleimann, ‘Trade Related Aspects of a Carbon Border Adjustment Mechanism. A Legal Assessment’, Briefing requested by the European Parliament’s Committee on International Trade (April 2020) <[https://www.europarl.europa.eu/thinktank/en/document/EXPO_BRI\(2020\)603502](https://www.europarl.europa.eu/thinktank/en/document/EXPO_BRI(2020)603502)>

for the CBAM to ‘mirror’ the EU ETS so that imported products be ‘subject to a carbon price equivalent to the one they would have paid under the EU ETS, had they been produced in the EU’.¹²³ Cognisant of this risk, the Commission proposes that, until free allowances are being granted, the number of CBAM certificates to be surrendered will be reduced to reflect the extent to which EU ETS allowances are allocated free of charge.¹²⁴ Yet, the methodology for adjusting the number of CBAM certificates to be purchased for the amount of free allowances is far from being settled¹²⁵ and may lead to discriminatory outcomes against foreign producers.¹²⁶

Second, double protection for EU-based industries would very likely weaken a defense under Article XX GATT. As already mentioned, free allocation is the current carbon leakage measure within the EU ETS but works by muting the carbon price signal, that is, it levels down carbon costs for domestic producers rather than levelling them up for foreign producers as a CBAM would do.¹²⁷ From a climate perspective, a CBAM that replaces free allocation could thus constitute a better alternative carbon

accessed 27 September 2022; and Quick (n 10) 554 ff. The European Commission itself apparently embraces this assumption to the extent that it has repeatedly insisted on the CBAM being ‘designed to comply with World Trade Organization (WTO) rules, including as regards the principle of non-discrimination’ (European Commission, The European Green Deal (n 13) 5). The analysis of the legal constraints borne by internal measures under Article III GATT is provided below (see Section 3.5), including a discussion on the issue of ‘likeness’ of products, which is central to the notion of discrimination espoused under the principle on non-discrimination. However, it cannot be excluded that the CBAM qualifies as a border measure under Article II:1 GATT. The Commission itself considered such an option but expressly discarded it given that it ‘would have required revising the EU schedules of commitments at the WTO and also a considerable number of free trade agreements’ (European Commission, Impact Assessment Report (n 13) 42). Yet, as Pauwelyn and Kleimann correctly argue, whether the CBAM would qualify as a tariff or as an internal measure under WTO will ultimately depend on ‘the *actual text*’ of the relevant WTO provisions themselves: Pauwelyn and Kleimann (n 122) 5, stating in particular that ‘[w]hat is, for example, a “tax” or “subsidy” for EU law purposes or from an economic perspective, is not necessarily a “tax” or “subsidy” under the text of WTO rules’). The authors also note that, while ‘past WTO rulings have also been referred to in order to guide the meaning of WTO provisions’, the lack of suitable ‘precedents’ would make it ‘very difficult to predict whether a particular carbon adjustment mechanism would be WTO consistent’ (ibid). Existing literature is indeed divided as to whether the CBAM could qualify as a border measure or rather as an internal measure. Citing prior WTO case law (see, in particular, Appellate Body Report, *China – Measures Affecting Imports of Automobile Parts*, WT/DS339/AB/R, WT/DS339/AB/R, WT/DS339/AB/R (15 December 2008), paras 158 and 161), Bacchus contends that ‘the fact that the CBAM mandate to purchase an emission certificate would be triggered by the act of importing that product and would *not* accrue due to an internal event – such as the distribution, sale, use, or transportation of the imported product – argues against the EU contention that the CBAM would be an internal regulation’: Bacchus (n 76) 3. Referring to the same jurisprudence, however, Quick opines that the obligation to surrender CBAM certificates ‘accrues “on” importation [in the sense that t]he underlying reason for the import measure is an internal event, the domestic emission trading system’ (Quick (n 10) 567) and thus concludes that it could be considered ‘the application of a domestic regulation applied at the border covered by GATT Ad Article III’ (ibid 569). Regardless of this debate, were the CBAM considered a border measure, it would automatically run counter to EU obligations under Article II:1 GATT inasmuch as the anticipated increase in the EUA price would make the EU violate its tariff bindings (see, among others, Bacchus (n 76) 3). By contrast, were the CBAM qualify as an internal measure, it could still be considered WTO consistent to the extent the EU could prove it is merely designed to level the playing field: see Section 3.5. At any rate, the possibility to seek justification under Article XX GATT remains for either measure.

¹²³ European Commission, Impact Assessment Report (n 13) 17. On the need to make the CBAM ‘mirror’ the ETS when it comes to adjusting for free allocation of allowances to EU entities, see Green Trade Network, ‘Summary for EU Decision-Makers: Four Guiding Principles for CBAM Design and Implementation’ (7 March 2022) <<https://ieep.eu/publications/summary-for-decision-makers-four-guiding-principles-for-cbam-design-and-implementation>> accessed 27 September 2022.

¹²⁴ European Commission, CBAM Proposal (n 15) art 6, para 2(c) and art 31, para 1.

¹²⁵ The European Commission regulation leaves this to be determined by implementing acts: ibid article 31, para 2.

¹²⁶ In the words of James Bacchus: ‘[a]s on the national treatment issue, the greatest vulnerability for the EU would be if continued to grant free emissions allowances for select domestic producers. To fulfil its WTO obligations, the best course for the EU would be to resist domestic industry pressures and abolish these allowances. Keeping them as they are would be a fatal legal mistake. Phasing them over time – even with the addition of purportedly equivalent price offsets for certificates required of like imported products – may, in the end, not be enough to survive legal scrutiny in WTO dispute settlement.’ Bacchus (n 76) 6.

¹²⁷ See Section 2.1.

leakage measure.¹²⁸ If both instruments co-exist, however, domestic producers will have less of an incentive to decarbonise due to the additional protection provided by the CBAM.¹²⁹ This would undermine the environmental effectiveness of the CBAM and contradict its stated climate purpose, ultimately compromising its chances to be provisionally justified under Article XX (b) and/or (g) GATT and to pass the *chapeau* test for the reasons already explained in Section 3.2.¹³⁰ In a similar fashion, the considerations offered therein with regards to potential hurdles arising out of the UNFCCC and the Paris Agreement hold true in the case of a CBAM design that contemplates double protection.

3.4 Geographic Scope

In terms of its geographic scope, the Commission proposal covers all third countries, with the exception of one category of countries: Annex II of the proposal specifies that the Regulation does not apply to the European Economic Area (EEA) countries Iceland, Liechtenstein, Norway, and Switzerland.¹³¹ These are all countries that have been either integrated in, or linked to (in the case of Switzerland), the EU ETS.¹³² The proposal also provides for another type of exemption, namely in cases where ‘a third country or territory has an electricity market which is integrated with the Union internal market for electricity through market coupling, and it has not been possible to find a technical solution for the application of the CBAM to the importation of electricity into the Union, from that third country or territory’.¹³³ To be granted such an exemption, the third country or territory needs to, among others: conclude an agreement with the EU to apply EU law on electricity (including the EU’s renewable energy legislation); adopt national legislation to that end; commit to climate neutrality by 2050; and adopt measures to prevent indirect imports of electricity.¹³⁴ When the proposal was released, no country was listed yet,¹³⁵ and given the rather stringent requirements set in the proposal, one may wonder how many countries would fulfil these criteria. The proposal further sets out the conditions under which countries may be removed from Annex II, empowering the Commission to adopt delegated acts to amend the list of countries.¹³⁶

From an environmental perspective, the exemptions for the countries integrated to, or linked with, the ETS make intuitive sense: after all, these countries implement the same carbon price as the EU, meaning that the risk of carbon leakage is minimal.¹³⁷ Another way of interpreting this choice may be that the ‘formal’ exemption practically amounts to crediting for the equivalence in the carbon price imposed in the EEA countries, as it is in fact envisaged more generally for explicit carbon pricing policies imposed in third countries (see Section 3.6). Excluding these countries introduces, however, a risk of trans-shipment, which may undermine the environmental benefits from the measure if no safeguards are put in place.¹³⁸

¹²⁸ Importantly, free allocation has reportedly contributed to industrial emissions remaining largely flat in the last decade. Green Trade Network (n 123).

¹²⁹ Ibid. See also European Commission, CBAM Proposal (n 15) recital 3.

¹³⁰ Along the same lines, see Sanna Markkanen et al, ‘On the Borderline: The EU CBAM and Its Place in the World of Trade’ (Cambridge Institute for Sustainability Leadership 2021) 42.

¹³¹ European Commission, CBAM Proposal (n 15) art 2.5, and Annex II, Section A. This section also excludes the following territories: Büsingen, Heligoland, Livigno, Ceuta and Melilla.

¹³² However, this integration or link is not sufficient. The CBAM proposal, *ibid*, art 2.5(b), further requires that ‘the price paid in the country where the goods are originating in is effectively charged on those goods without any rebate beyond those also applied in the EU ETS’.

¹³³ Ibid art 2.7.

¹³⁴ Ibid.

¹³⁵ Ibid Annex II, Section B.

¹³⁶ Ibid art 2.9–2.11.

¹³⁷ Marcu et al (n 78) 28.

¹³⁸ Ibid.

From the perspective of international trade law, any country-based exemption risks a violation of international trade rules, specifically the most-favoured-nation clause of Article I GATT. Effectively, whole countries are exempted in the CBAM proposal because the same policy applies to them (the EU ETS) or because of their interconnectedness with the EU electricity grid. There arguably would be very slim chances to have such exemptions successfully characterised as part of the more general crediting features of the CBAM. The question is whether such a violation can be justified under Article XX. Given that the exemption is based on environmental grounds (being integrated to, or linked with, the EU ETS; or adopting a range of measures to decarbonise electricity), it can be argued that the inclusion of these countries does not amount to arbitrary or unjustified discrimination.¹³⁹

Another issue that can be raised with regard to exemptions is what the proposal does *not* include. Specifically, the proposal does not include an exemption for countries based on their level of economic development or level of emissions. This is potentially problematic, given the impact of the measure on LDCs, which have historically been responsible for only a small proportion of emissions. Although the main affected country at present seems to be Mozambique, which is a major aluminium exporter to the EU,¹⁴⁰ other countries also export (smaller amounts of) covered goods to the EU. Moreover, as the product scope of CBAM is increased, it will likely affect an increasing number of LDCs.¹⁴¹

Echoing these concerns, there have been voices arguing for an exemption of LDCs before and after the proposal was released.¹⁴² The European Parliament specifically asked the Commission to consider the impacts on LDCs, ‘stress[ing] that Least Developed Countries and Small Island Developing States should be given special treatment in order to take account of their specificities and the potential negative impacts of the CBAM on their development’.¹⁴³ The Commission did consider the impacts on LDCs in its impact assessment, but opted not to exempt them. The reasoning of the Commission is worth citing in full:

‘[B]lanket exemptions from a CBAM should be avoided, as setting up a mechanism that will encourage LDCs to increase their level of emission and run counter to the overarching objective of the CBAM. In addition, these exemptions would be temporary in nature, and would therefore prove counterproductive for LDCs in the long run: the carbon intensive industry would have to be dismantled, and if exempted now, adaptation costs for LDCs would be higher. To sum up, neither the EU nor the trading partners would have an interest in fostering the growth of carbon-intensive, industries in these countries.’¹⁴⁴

This reasoning can be questioned from the perspective of both international trade law and climate change law. From the perspective of trade law, exemptions for LDCs that would lead to a violation of the most-favoured-nation rule could strengthen the justification of the measure under Article XX,

¹³⁹ Ingo Venzke and Geraldo Vidigal, ‘Are Trade Measures to Tackle the Climate Crisis the End of Differentiated Responsibilities? The Case of the EU Carbon Border Adjustment Mechanism (CBAM)’ (Amsterdam Law School 2022) 22.

¹⁴⁰ Chris Kardish et al, ‘Which Countries Are Most Exposed to the EU’s Proposed Carbon Tariffs?’ (ResourceTrade.Earth, 20 August 2021).

¹⁴¹ See, e.g., Institute for European Environmental Policy et al, ‘What Can Least Developed Countries and other climate vulnerable countries expect from the EU Carbon Border Adjustment Mechanism (CBAM)’ (2021); Brendan Vickers, Salamat Ali and Kimonique Powell, ‘The EU’s Carbon Border Adjustment Mechanism: Implications for Commonwealth Countries’ (Commonwealth Secretariat 2021); Markus Zimmer and Arne Holzhausen ‘EU Carbon Border Adjustments and Developing Country Exports: Saving the Worst for the Last (Allianz 2020).

¹⁴² See, among others, Sam Lowe, ‘The EU’s Carbon Border Adjustment Mechanism: How to Make it Work for Developing Countries’ (Centre for European Reform 2021) 9.

¹⁴³ EP ENVI Committee (n 61) para 8.

¹⁴⁴ European Commission, Impact Assessment Report (n 13) 30.

given their low capacities and low greenhouse gas emissions. As Pauwelyn notes, ‘the introductory phrase of Article XX may force the carbon-restricting country [i.e., the EU] to have lower or even no carbon restrictions on imports from developing countries, especially the very poor ones’.¹⁴⁵ In short, this differential treatment would arguably strengthen a defence under Article XX and, more generally, be in line with the principle of special and differential treatment in WTO law.¹⁴⁶

One could counter that exempting LDCs would run counter to the most-favoured-nation treatment rule of Article I GATT. However, if that were the Commission’s overriding concern, then the proposal should not have exempted any country whatsoever. More importantly, with the 1979 Enabling Clause, there is actually a normative basis for exempting LDCs. The Enabling Clause provides that ‘[n]otwithstanding the provisions of Article I of the General Agreement, contracting parties may accord differential and more favourable treatment to developing countries, without according such treatment to other contracting parties’.¹⁴⁷ Such treatment includes ‘[s]pecial treatment on the least developed among the developing countries in the context of any general or specific measures in favour of developing countries’.¹⁴⁸ Moreover, the Enabling Clause suggests that countries should take into account the ‘special economic situation and [] development, financial and trade needs’ of LDCs.¹⁴⁹ The Enabling Clause thus provides support for an exemption of LDCs,¹⁵⁰ although it is less clear whether it would support an exemption for developing countries in general.¹⁵¹

From the perspective of climate change law, the claims that an exemption would lead to higher emissions or higher costs of adaptation for LDC industries can be challenged. Indeed, if the EU (and other developed countries) fulfil their existing obligations to support developing countries, and in particular LDCs, in the implementation of their obligations under the climate treaties, this risk can be reduced. The special circumstances of LDCs – along with those of small island developing States – are noted in the UNFCCC and Paris Agreement. Specifically, the UNFCCC instructs its parties to ‘take full account of the specific needs and special situations of the least developed countries in their actions with regard to funding and transfer of technology’.¹⁵² In other words, the risks that the EU mentions can – and arguably should – be addressed first and foremost by the EU fulfilling its commitments under the UNFCCC and the Paris Agreement on providing climate finance.

While the claims that CBAM would lead to an increase in LDC emissions can thus be challenged, the more fundamental criticism is that not providing for an exemption – or, lacking that, another form of differential treatment – for LDCs (and small island developing States) in particular¹⁵³ would run counter to the principle of CBDR-RC enshrined in the UNFCCC and the Paris Agreement. Although this principle does not offer concrete guidance in terms of what behaviour is required from parties such as the EU, the coverage of all countries irrespective of their historical contribution to the problem or their development status can hardly be argued to be aligned with the principle. The Commission shows some awareness of this argument when it states that ‘[i]n the absence of such compensating

¹⁴⁵ Pauwelyn (n 20) 503–504.

¹⁴⁶ See Venzke and Vidigal (n 139).

¹⁴⁷ GATT Secretariat, ‘GATT Secretariat, Decision on Differential and More Favorable Treatment, Reciprocity and Fuller Participation of Developing Countries’ BISD 26S/191 (1980) para. 1.

¹⁴⁸ *Ibid.*, para 2(d).

¹⁴⁹ *Ibid.*, para 8.

¹⁵⁰ Mehling et al (n 11) 463–464; Ulrike Will, *Climate Border Adjustments and WTO Law* (Brill Nijhoff 2018) 189.

¹⁵¹ See Venzke and Vidigal (n 139) 28–29, who suggest that while the Enabling Clause would support differential treatment with regard to administrative and technical aspects of the CBAM proposal (e.g. measuring greenhouse gas emissions), it is less certain that the Enabling Clause will allow for differential treatment with regard to the fiscal aspects of the CBAM proposal; see also Will (n 150) 185–189.

¹⁵² United Nations Framework Convention on Climate Change (adopted 4 June 1992, entered into force 21 March 1994) 1771 UNTS 107, art 4.9; see also Paris Agreement (n 1) preamble and arts 4.6, 9.4, 9.9, 11.1, and 13.3.

¹⁵³ One could also argue more generally for differential treatment for developing countries. See, for example, Venzke and Vidigal (n 139).

mechanisms, LDCs could argue that the introduction of a CBAM will be a disproportionate burden for them and that they conflict with the UNFCCC principle of common but differentiated responsibilities and respective capabilities, in light of different national circumstances'.¹⁵⁴ Yet, the proposal not only lacks an exemption, but also does not include any other specific provisions for LDCs (e.g., with respect to the use of CBAM revenues; see Section 3.7) aside from a general promise to 'support less developed countries with the necessary technical assistance in order to facilitate their adaptation to the new obligations established by this regulation'.¹⁵⁵ To some extent, this omission is addressed by the European Parliament's proposed amendments from June 2022,¹⁵⁶ which explicitly call on the EU to support LDCs (see Section 3.7). However, also the Parliament does not go as far as creating an exemption.

3.5 Determination of Carbon Content

To determine the carbon content of imported products, which in turn forms the basis for the adjustment, the CBAM proposal envisages using actual emissions data at installation level (verified by accredited verifiers) and, only where that is not possible, relying on 'default values'.¹⁵⁷ For electricity, the proposal also resorts to default values, although a declarant can also opt for declaring actual emissions under certain conditions.¹⁵⁸

The choice to combine a method based on actual embedded emissions and a method based on default values reflects a trade-off between accuracy and administrative feasibility.¹⁵⁹ It arguably also entails positive legal implications, however. In particular, it could be opined that, even if the determination of actual embedded emissions is complex and potentially burdensome, allowing importers to show actual emissions data increases the WTO compatibility prospects of a CBAM for two main reasons.

First, it could support the argumentation that the measure is in line with the national treatment principle as per Article III GATT. This principle protects the competitive opportunities of foreign products vis-à-vis domestic like products by requiring that an internal measure – be it a 'tax' as per Article III:2 or a regulation as per Article III:4 – does not impose a heavier burden on imported products as compared to 'like' domestic products.¹⁶⁰ Based on past WTO rulings, it seems most likely that products with different carbon intensities would be considered 'like' under either provision, inasmuch as WTO adjudicatory bodies have centred their determination on the assessment of the existence of a competitive relationship in the marketplace between domestic and imported products.¹⁶¹ It remains to be seen, however, whether the requirement to purchase and surrender

¹⁵⁴ European Commission, Impact Assessment Report (n 13) 30.

¹⁵⁵ European Commission, CBAM Proposal (n 15) recital (55).

¹⁵⁶ European Parliament (n 65) Amendment 130 (Article 24a, para 2 (new)).

¹⁵⁷ European Commission, CBAM Proposal (n 15) art 7.2; Annex III.

¹⁵⁸ *Ibid* art 7.3 and Annex III.

¹⁵⁹ See, among others, Pirlot (n 33) 40.

¹⁶⁰ Importantly, both an internal 'tax' and an internal 'regulation' can be adjusted on imported products. As noted by Pauwelyn and Kleimann, for our purposes the main difference is that the former can be adjusted either by 'simply applying it at the point of sale or consumption in the EU of [a covered product], irrespective of whether [it] was made in the EU or imported from China (pursuant to GATT Article III:2)', or '[it] can be adjusted at the border with a border tariff or charge "equivalent to" the internal tax (pursuant to GATT Article II:2(a)). An internal regulation, in contrast, can only be adjusted for imports by applying the same or an equivalent regulation also on imports'. Pauwelyn and Kleimann (n 122) 9. Depending on whether the EU ETS can be seen as an internal tax or as an internal regulation, Article III requires that a CBAM does not end up taxing imports 'in excess' of domestic 'like' products or 'not similarly' to 'directly competitive or substitutable products (as per para 2, first and second sentence, respectively) or that the CBAM does not accord a 'less favourable treatment' to imports as compared to 'like' domestic products (as per para 4).

¹⁶¹ For a thorough recollection of relevant GATT/WTO case law and a critical analysis of the likeness criteria elaborated thereupon, see, among others, Mehling et al (n 11) 460–461; Quick (n 10) 571 ff; Pauwelyn and Kleimann (n 122) 9–10. Importantly, they converge in saying that the products covered by the CBAM would most likely be found to be 'like'

CBAM certificates at the weekly average EUA price could be construed as the adjustment of a ‘tax’ or of a ‘regulation’. Arguably the European Commission attempted to articulate the CBAM proposal with a view to, *inter alia*,¹⁶² argue under Article III:4 GATT.¹⁶³ The preference for actual carbon declaration and the residual role of default values is seemingly informed by *US – Gasoline*.¹⁶⁴ The choice of proposing alternative default values based on European production site average emissions¹⁶⁵ was arguably made having the famous *obiter dictum* in *EC – Asbestos* in mind,¹⁶⁶ with a view to contending that the overall group of imported products is not treated less favourably than the overall group of like EU products.¹⁶⁷ Finally, the insistence on the carbon leakage narrative is, among others,

irrespective of their carbon footprint. Mehling et al, however, specify that there might be room for products with different carbon intensities to be considered ‘directly competitive or substitutable’ as per Article III:2 GATT, second sentence, to the extent that the Appellate Body affirmed that ‘[w]hat constitutes a competitive relationship between products may require consideration of inputs and processes of production used to produce the product’: Mehling et al (n 11) 461, citing Appellate Body Report, *Canada – Certain Measures Affecting the Renewable Energy Generation Section*, WT/DS412/AB/R, WT/DS426/AB/R (6 May 2013) para 5.63. It should be noted, however, that WTO adjudicatory bodies have never assessed a trade-related climate measure under the likeness test and so it remains very difficult to predict what the outcome would be were the CBAM to be challenged: importantly, WTO case law has consistently assessed likeness against four established criteria (physical properties, end use, HS classification and consumer preferences) and at least one of them (that is, consumer preferences) could at least in principle be stretched to accommodate the CBAM.

¹⁶² Arguably, the EU is very keen in excluding that the CBAM is a tax for ‘internal’ reasons too: were the CBAM a tax, under EU law its approval would require unanimity pursuant to art 192(2) of the Treaty on the Functioning of the European Union [2012] OJ C326/47.

¹⁶³ Following the extension of the ETS to international flights back in 2008, the then European Court of Justice ruled that the obligation to purchase emission allowances could not be characterised as a tax or other charge to the extent that the actual pecuniary burden for the operator is not fixed, that is, it does not depend on the number of allowances to be surrendered but rather on the *market-determined* price of the allowances (and in fact it cannot be ruled out that participation in the EU ETS does not result into a pecuniary burden given the EUAs are tradeable in the market). European Court of Justice, Case C-366/10, *Air Transport Association of America et al v Secretary of State for Energy and Climate Change* (21 December 2011), paras 142–143. In the case of the CBAM, the issue boils down as to whether the obligation to purchase and surrender CBAM certificates could be considered as sufficiently linked to the EU ETS so that the CBAM could also not be considered a ‘tax’ due to its connection to the EU ETS. In this respect, the fact that the price of CBAM certificates follows the (market-determined) price of EUAs, even if on a weekly average, could be interpreted to mean that the CBAM does not impose a fixed pecuniary burden on authorised declarants but rather a ‘market-determined’ burden. It remains an open question, however, whether this conclusion could still hold even if CBAM certificates are not tradeable contrary to EUAs, or whether it could suffice that they can be re-purchased (although at the same price paid at the time of purchase). See European Commission, CBAM Proposal (n 15), art 23.

¹⁶⁴ In *US – Gasoline*, the Panel found that ‘since under the baseline establishment rules of the Gasoline Rule, imported gasoline was effectively prevented from benefitting from as favourable sales conditions as were afforded domestic gasoline by an individual baseline tied to the producer of a product, imported gasoline was treated “less favourably” than domestic gasoline’. See *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS2/R (25 September 1997), para 6.16.

¹⁶⁵ For goods others than electricity, the CBAM proposal envisages that, in the absence of reliable data for the exporting country, the default value will be based on the average emission intensity of the 10 percent worst performing EU installations for that type of good. For electricity, where third country-specific default values have not been determined, the calculation will be based on a default value set at the average CO₂ intensity of electricity produced by fossil fuels in the EU. European Commission, CBAM Proposal (n 15) Annex III. While such default values have been described as ‘punitive’ by some (see, e.g., Elisabetta Cornagó and Sam Lowe, ‘Avoiding the Pitfalls of an EU Carbon Border Adjustment Mechanism’ (Centre for European Reform, 5 July 2021)), the European Parliament’s ENVI Committee has clarified that default values were chosen with a view to avoid that they be ‘lower than the likely embedded emissions’, which would result in the exporter benefitting from the failure to provide reliable data on actual emissions and from the use of default values. EP ENVI Committee (n 63) Compromise Amendment 6, Annex III, point 4.

¹⁶⁶ According to the Appellate Body in *EC – Asbestos*, ‘a Member may draw distinctions between products which have been found to be “like”, without, for this reason alone, according to the group of “like” imported products “less favourable treatment” than accorded to the group of “like” domestic products’. Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, WT/DS/135/AB/R (12 March 2001), para 100.

¹⁶⁷ Pauwelyn (n 20) 491. More recently, Pauwelyn and Kleimann suggested: ‘[i]f, on the whole, China exports “dirtier” steel to the EU compared to “cleaner” steel, then a finding of *de facto* discrimination is possible, on the ground that the group of imported steel from China is hit harder than the group of EU steel. ... One way to avoid such *de facto* discrimination is to impose on imports of steel from China the *average* carbon price levied on EU steel. By using the EU group average, *de facto* group equality can be ensured. In addition, individual Chinese exporters could be allowed to

instrumental to conforming to prior WTO rulings on Article III:4 GATT, according to which a measure does not necessarily accord less favourable treatment if its detrimental effects ‘can be explained by factors or circumstances unrelated to the foreign origin of the product’,¹⁶⁸ such as in the case of a CBAM linked to a product’s carbon footprint.¹⁶⁹ All these features arguably make the CBAM more likely to have a chance to be considered consistent with the national treatment principle if it can be construed as an internal regulation under Article III:4 GATT. As explained above, this possibility is far from remote.¹⁷⁰

Second, allowing importers to show actual emissions data arguably strengthens the defence under the *chapeau* of Article XX GATT 1994. This is because the *chapeau* aims at ensuring that a measure is not applied in manner that would constitute arbitrary or unjustifiable discrimination *where the same conditions prevail* or a disguised restriction on international trade.¹⁷¹ A CBAM that practically accommodates for the actual embedded emissions of imported products will most likely be considered to be applied with ‘sufficient flexibility to take into account the specific conditions prevailing in any exporting Member’.¹⁷² In this respect, differentiating the treatment of products based on actual embedded emissions may inevitably entail some form of discrimination across countries to the extent that carbon-intensity production processes are prevailingly lower in certain countries as compared to others as a result of heterogeneously ambitious climate efforts leading to differentiated carbon prices.¹⁷³ This level of discrimination, however, could arguably be ‘reconciled with, or [considered to be] rationally related to, the policy objective with respect to which the measure has been provisionally justified under one of the subparagraphs of Article XX’,¹⁷⁴ that is, the CBAM’s carbon leakage objective. Importantly, and for similar reasons, this design feature could in principle be considered in line with the differentiated approach espoused under the Paris Agreement, according to which, to the extent that differences in carbon footprints of foreign products arguably reflect

demonstrate that they emitted *less* than the EU average, and on that basis pay a lower carbon price. If so, the overall group of Chinese imports only stands to be treated *more favourably* than the group average of EU steel producers.’ Pauwelyn and Kleimann (n 122) 9–10. By proposing to combine actual embedded emissions with residual default values based on the average emission intensity of the 10% worst performing EU installations, the EU is seemingly attempting at espousing this logic under the assumption that the overall group of imported products has a higher emission intensity than the group average of EU like products produced by the 10% worst performing installations.

¹⁶⁸ Appellate Body Report, *United States – Measures Affecting the Importation and Internal Sale of Cigarettes*, WT/DS302/AB/R (25 April 2005), para 96; Appellate Body Report, *United States – Measures Affecting the Production and Sale of Clove Cigarettes*, WT/DS406/R (2 September 2011), para 7.268. See also Holzer (n 20) 135-136; Quick (n 10) 577; Mehling et al (n 11) 462.

¹⁶⁹ On the implications of origin-neutrality under WTO law, see Section 3.4.

¹⁷⁰ See n 126. Even assuming the opposite was true, however, it cannot be excluded at the outset that the CBAM could be deemed permissible under Article III:2 GATT: chances increases, in particular, in the case products with different carbon intensities were considered ‘directly competitive or substitutable’ under the regime of Article III:2, second sentence, which encapsulates a relatively lenient requirement that the domestic and foreign products be taxed ‘similarly’, while admitting a measure’s purpose may play a role in evaluating whether protection is afforded to domestic production. Mehling et al (n 11) 462, citing Appellate Body Report, *Chile – Taxes on Alcoholic Beverages*, WT/DS87/AB/R (13 December 1999), para 71.

¹⁷¹ As a means to prevent abuses of the GATT general exceptions, the *chapeau* looks at how a provisionally justified measure under one of the subparagraphs of Article XX (first step) is applied in practice (second step). For a recollection of relevant GATT/WTO case law interpreting this requirement see, among others, Holzer (n 20) 165 ff and Quick (n 10) 583–586.

¹⁷² See Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products (Article 21.5)*, WT/DS58/AB/R (15 June 2001) (*US – Shrimp, Article 21.5*) para 149.

¹⁷³ Importantly, the fact that these differences more generally reflect the existence of uneven climate policies triggers another related question: that is, how to take into account other countries’ climate (pricing and/or non-pricing) policies: see Section 3.6.

¹⁷⁴ See, in particular, Appellate Body Report, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/AB/R, WT/DS401/AB/R (22 May 2014), para 5.318. Along the same lines, see also Appellate Body Report, *Brazil – Measures Affecting Imports of Retreaded Tyres*, WT/DS332/AB/R (3 December 2007), para 227.

uneven domestic climate action, they remain legitimate insofar as such policies correspond to the ‘highest possible ambition’ that can be expected from individual countries in light of their national circumstances.¹⁷⁵ In this respect, it is worth noting that a Paris-consistent CBAM design may most likely satisfy the conditions posed by the *chapeau* of Article XX GATT inasmuch as it could arguably be considered to avoid arbitration or unjustifiable discrimination.¹⁷⁶

Based on the discussion so far, technically there may be legal benefits to allowing importers to show actual emissions so as to obtain reductions in border adjustment costs. However, like the stated purpose of the regulation itself (as discussed above), this might not be enough. The devil is in the details, or in this case in the implementation. The Commission’s own impact assessment finds that costs for compliance are likely to be substantial. Indeed, they may be prohibitive for small and medium-sized enterprises, so that default values will apply. They may also be high enough that a substantial number of larger firms also opt for the default rate. If this happens, then the compliance costs linked to the scheme will force a failure to actually realise cross-border improvement in emissions outcomes. Firms will just pay the default rate like any other tax, and any intended climate related outcomes will be sterilised.¹⁷⁷ In essence, the effectiveness of this dimension of the measure depends on several factors. The first is meeting the administrative burden of compliance costs. The second is actual adaptation costs to qualify for a reduced CBAM fee. Given these costs, the benefit of a feasibly reduced rate relative to the default rate must justify adaptation costs (and proof of adaptation). Finally, because the measure does not address the full complexity of modern value chains (indirect embodied emissions, such as emissions from electricity used to make steel that goes into a washing machine), higher costs might just create an incentive to move upstream activities using inputs linked to the ETS (like washing machines) offshore.¹⁷⁸ Indeed, this ‘upstream leakage’ (to coin a term) may also be realised anyway as ETS costs rise for European production, as much of the ETS essentially targets energy intensive upstream production.

3.6 Crediting Third Country Climate Policies

¹⁷⁵ In this sense, see Pirlot (n 33) 32.

¹⁷⁶ Recognising the mutually reinforcing link between the *chapeau* requirements and the principle of common but differentiated responsibilities and capabilities informing the differentiated approach of the Paris Agreement, see Mehling et al (n 11) 469–470. As noted by these authors, importantly, chances to successfully defend the CBAM under the *chapeau* of Article XX GATT also increase to the extent that the application of the measure occurs in accordance with ‘basic fairness and due process’ requirements (ibid 468, citing *US – Shrimp*): in this respect, the transparency in the legislative process of the CBAM proposal, the dialogue engaged with the different stakeholders all throughout, and the provision of a transitional period (2023–2025) to allow for a gradual phase-in for exporters are all factors that will likely be considered favourably in the context of an Article XX *chapeau* analysis.

¹⁷⁷ Here it is informative to read the Commission’s own estimated impact of compliance costs under both carbon border tax or certificate schemes. See European Commission ‘Staff Working Document Accompanying the Proposal for a Regulation of the European Parliament and of the Council on foreign subsidies distorting the internal market’, SWD(2021) 99 final, 5 May 2021. With a certificate-based scheme, costs for firms may be €3.96 million to €5.03 million with default rates, versus €18.88 million to €28.48 million for CBAM certificates using actual emission values. This entire range of costs may be prohibitive or small and medium-sized enterprises, while for larger firms the costs need to be justified by border adjustment savings. A scheme where default rates apply and are set at the internal rate rather than below it, even when firms can demonstrate the actual basis for the rate, may yield strategic benefits for domestic firms while also creating an incentive for foreign consumption to be more emission intensive. Again, this seems to run counter to the stated goals of the scheme. See Edward J Balistreri, Daniel T Kaffine, and Hidemichi Yonezawa ‘Optimal Environmental Border Adjustments Under the General Agreement on Tariffs and Trade’ (2019) 74(3) *Environmental and Resource Economics* 1037.

¹⁷⁸ For evidence on the indirect upstream emissions embodied in downstream trade, see Octavio Fernández-Amador et al, ‘The Methane Footprint of Nations: Stylized Facts from a Global Panel Dataset’ (2020) 170 *Ecological Economics* 1, and Octavio Fernández-Amador et al, ‘Carbon Dioxide Emissions and Economic Growth: An Assessment Based on Production and Consumption Emission Inventories’ (2017) 135 *Ecological Economics* 269.

For several reasons, it is sensible for the CBAM to consider the climate policies of third countries in the calculation of the adjustment. By crediting third countries' climate policies, the CBAM would avoid double charging for the carbon in the goods covered by the measure. It would also reduce the risk of diplomatic pushback against the measure, at least from those countries whose policies are credited. Moreover, crediting climate policies of third countries may offer an incentive for those countries to adopt climate policies. At the same time, not crediting foreign climate policies would be the simplest approach from a technical and administrative perspective.¹⁷⁹ A key question that arises, however, is not only whether to credit third countries' policies, but also *which policies* to take into account: should these include only carbon pricing (e.g., a carbon tax or an ETS), or also other non-carbon pricing policies (e.g., fuel taxes, renewable energy support schemes, product requirements, fossil fuel subsidies, etc.)? While crediting other carbon pricing systems already raises some challenges (e.g., because countries may have systems with different sectoral coverage, or address carbon offsets in different ways), crediting other policies will be very difficult administratively. It would require a decision on which policies to include and exclude from both the EU and third countries. It would further demand complex calculations of the carbon costs of such policies which would then have to inform a standard methodology that does not currently exist. Moreover, given that the CBAM is based on the EU's own carbon pricing system (rather than the EU's non-pricing climate policies), it can be questioned whether non-pricing policies of third countries *should* be adjusted.¹⁸⁰

The Commission's proposal allows for third countries' policies to be accounted for, but limits this to carbon pricing policies (including both national and subnational pricing policies).¹⁸¹ The proposal explains that the EU will engage and cooperate with third countries on the implementation of certain CBAM elements, including agreements to facilitate comparison between carbon pricing mechanisms.¹⁸² According to the Commission, such '[a]greements with third countries could be considered as an alternative to the application of CBAM in case they ensure a higher degree of effectiveness and ambition to achieve decarbonisation of a sector'.¹⁸³ These agreements will thus play an important role in determining the extent to which a third country's carbon pricing scheme is credited in the CBAM calculation.

Although the reasons for the Commission's choice may make sense at first blush, concerns may nevertheless arise with regard to the compatibility with trade law. First, distinguishing between countries on the basis of whether they adopted carbon pricing or not arguably runs counter to the most-favoured-nation treatment rule of Article I GATT. Moreover, in *US – Shrimp*, the WTO Appellate Body – discussing the requirement of the *chapeau* of Article XX to avoid arbitrary or unjustifiable discrimination – indicated that imposing countries need to provide for flexibility for exporting countries that have adopted measures that are 'comparable in effectiveness'.¹⁸⁴ This suggests that non-pricing policies that can be considered to achieve the same environmental outcome (in terms of emission reductions) should be considered, including potentially non-pricing policies. However, given that the EU has a host of policies flanking its own carbon pricing system, adjusting for non-pricing policies would suggest that the EU should also calculate the implicit carbon costs of its own non-pricing policies.¹⁸⁵ The more the policies that would be incorporated into any calculation, the higher the risk of arbitrariness – especially considering the challenges inherent to determining

¹⁷⁹ Andrei Marcu, Michael Mehling and Aaron Cosby, 'Border Carbon Adjustments in the EU: Issues and Options' (ERCST 2020) 37.

¹⁸⁰ *Ibid* 37–38.

¹⁸¹ European Commission, CBAM Proposal (n 15) art 9.

¹⁸² *Ibid* art 2.12.

¹⁸³ *Ibid* 2–3.

¹⁸⁴ *US – Shrimp, Article 21.5* (n 172) para 144.

¹⁸⁵ Marcu et al (n 179) 38.

equivalence between explicit and implicit carbon pricing measures. As such, adjusting for non-pricing policies could also be argued to be *less* compatible with WTO law.

From the perspective of international climate change law, the Commission's approach can be argued to be incompatible with the spirit of the Paris Agreement, in which each party can decide on its own nationally determined contribution, 'reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances'.¹⁸⁶ This means, among others, that Parties can determine which set of policies and measures is most appropriate for their own national circumstances. And while the Paris Agreement offers Parties the option to jointly implement market-based mechanisms in pursuit of their climate targets,¹⁸⁷ and many Parties have included carbon pricing in their nationally determined contributions,¹⁸⁸ the Agreement does not stipulate any preference for carbon pricing over other types of policies and measures. Crediting only one particular type of policy sends the message that one type of policy is preferable over others, irrespective of the circumstances prevailing in third countries.

3.7 Use of Revenues

The CBAM is expected to raise significant revenues. Although the exact amount that will be raised depends on a number of factors, including the sectoral scope, the decision on when to phase out free allocation, as well as the carbon price, the Commission estimates that the annual revenue from CBAM will be about €9 billion in 2030.¹⁸⁹ Notwithstanding these significant amounts, the Commission proposal indicates that 'revenue generation is not an objective of CBAM', and that it does not play a role in the design of the measure.¹⁹⁰ Although the Commission may state this, significant revenue raising will clearly be an outcome of the measure.

A key question is what those revenues will be used for. This question can be broken down along two dimensions: (1) whether revenues will be used for climate-related purposes (e.g., furthering the decarbonisation of industry, or offering financial support for adaptation to climate impacts); and (2) whether revenues will be used internally (i.e., accruing to the EU and its Member States) or externally (i.e., channelled to third countries). These two dimensions are not mutually exclusive, as the examples in Table 1 show.

¹⁸⁶ Paris Agreement (n 1) art 4.3.

¹⁸⁷ Ibid art 6.2 and 6.4.

¹⁸⁸ According to the UNFCCC website, two-thirds of all NDCs consider the use of carbon pricing: UNFCCC, 'About Carbon Pricing' <<https://unfccc.int/about-us/regional-collaboration-centres/the-ciaca-initiative/about-carbon-pricing#eq-7>> accessed 27 September 2022.

¹⁸⁹ This would include €7 billion from introducing auctioning in sectors that currently benefit from free allocation, and €2.1 billion directly from the CBAM. See European Commission, CBAM Proposal (n 15) 22.

¹⁹⁰ Ibid 15 and 47.

Table 1. Examples of options for the use of CBAM revenues.

	Non-climate purposes	Climate purposes
Internally	Flowing into general EU budget (as ‘own resources’)	Supporting further decarbonisation of covered EU industries
Externally	Recycling back to affected developing countries	Channelling to Green Climate Fund

The CBAM proposal only offers us a broad indication of what the revenues will be used for, suggesting that ‘most revenues’ will accrue to the EU budget, and that the revenues will also cover implementation costs, suggesting that the Commission’s choice has been the top-left quadrant in Table 1.¹⁹¹ The context of this decision is that, at the end of 2020, in the midst of the COVID-19 crisis in which new ‘own resources’ for the EU were sought to cover the EU’s long-term budget for 2021-2027, the Council instructed the Commission to explore using CBAM revenues for the EU budget.¹⁹² The only suggestion that the EU may offer financial support to third countries in relation to the CBAM Regulation is provided in the proposal’s recital, which indicates that ‘the EU stands ready to work with low and middle-income countries towards the de-carbonization of their manufacturing industries’ and that the EU ‘should support less developed countries with the necessary technical assistance in order to facilitate their adaptation to the new obligations established by this regulation’.¹⁹³

The lack of provisions that indicate that the EU will support developing countries, and in particular LDCs, can be seen as problematic not only from the perspective of the political viability of the proposal,¹⁹⁴ but potentially also from the perspective of both WTO law and international climate change law. With regard to WTO law, using revenues – in part or in full – externally to fund mitigation and adaptation activities in the developing world would help strengthen the environmental rationale of the measure in an analysis of the contribution to policy objectives under Article XX (b) and (g).¹⁹⁵ Moreover, they would strengthen the case that the measure is not intended to be a disguised restriction on international trade, and that the EU is acting in good faith, which both help to meet the Article XX *chapeau* requirements.¹⁹⁶ Although the EU’s principle of ‘universality’ in the budgeting context makes earmarking of revenues difficult,¹⁹⁷ these goals could still be achieved by allocating

¹⁹¹ Ibid 7 and 10.

¹⁹² Council Decision (EU, Euratom) 2020/2053 of 14 December 2020 on the system of own resources of the European Union [2020] OJ L424/1, recital [8]. The Commission followed this up with a proposal in 2021: European Commission, ‘The Next Generation of Own Resources for the EU Budget’ COM(2021) 566 final, 22 December 2021. In the proposal, the Commission suggests using 75 percent of the CBAM revenues as own resources, indicating that this amounts to €0.5 billion per year (ibid 3). See also Pirlot (n 33) 37.

¹⁹³ CBAM Proposal (n 15) recital [55].

¹⁹⁴ On the need for channelling revenues from BCAs generally, see Michael Grubb, ‘International Climate Finance from Border Carbon Cost Levelling’ (2011) 11(3) Climate Policy 1050.

¹⁹⁵ Mehling et al (n 11) 478.

¹⁹⁶ Hillman (n 20) 14.

¹⁹⁷ European Commission, Directorate-General for Budget, ‘Financial Regulation Applicable to the General Budget of the Union: July 2018’ (EU Publications Office 2019) Chapter 5 <<https://data.europa.eu/doi/10.2761/816722>> accessed 29 June 2022.

certain amounts of funding equivalent to the CBAM revenues as new climate finance.¹⁹⁸ Using the revenues internally in support of the low-carbon transition – for instance, of the covered sectors – may also contribute to the environmental goal of the measure, but doing so may also discriminate against foreign producers.¹⁹⁹

From the perspective of climate change law, the CBDR-RC principle suggests providing for differential treatment. This is arguably particularly pertinent for LDCs and small island developing States, which have historically contributed least to the problem of climate change, yet are at the same time most affected by its adverse impacts. Again, here the use of revenues for the purposes of international climate finance may help overcome any incompatibility with the differential treatment provided for in the UNFCCC and the Paris Agreement. Recycling the revenues back to affected developing countries arguably is also in line with this principle, although if there is no requirement to use those funds for climate change ends the environmental case may not be strengthened much.

The European Parliament's ENVI Committee sought to offer more clarity on the use of resources. Acknowledging that the EU can use revenue as 'own resources', the Committee – in a proposed amendment approved by the entire Parliament – requires financial support to be provided to LDCs to support their efforts to decarbonise and transform their manufacturing industries to allow them to adapt to the CBAM obligations.²⁰⁰ This new financial support should 'correspond at least to the level of revenues generated by the sale of CBAM certificates'.²⁰¹ Moreover, the amendment calls on the Commission to report on the use of the revenues to this end on an annual basis.²⁰² By doing so, the Parliament thus addresses the weaknesses of the Commission proposal from a climate change law perspective, although it is unclear why the Parliament's amendments are restricted to LDCs (as opposed to all developing countries).

4. Implications

The analysis above has shown that the CBAM proposed by the European Commission is a complex experimental measure that 'few would have anticipated not so long ago'.²⁰³ While it is too soon to draw definitive conclusions on its supposed compatibility with WTO law and climate change law,²⁰⁴ the analysis in the previous section sheds light on the strengths and weaknesses of the CBAM proposal, as it currently stands, by means of discussing the legal implications of the measure's main

¹⁹⁸ Such finance could be distributed through existing funds such as the Green Climate Fund or Adaptation Fund, but it is also conceivable that a dedicated fund would be established. See Clara Brandi, 'Priorities for a Development-Friendly EU Carbon Border Adjustment (CBAM)' (Deutsches Institut für Entwicklungspolitik (DIE) 2021).

¹⁹⁹ Holzer suggests this 'may run afoul of WTO rules on subsidies. Holzer (n 20) 237.

²⁰⁰ EP ENVI Committee (n 64) Compromise amendment 9 BIS (Article 24a), corresponding to European Parliament (n 65) Amendment 130 (Article 24a, para 2 (new)).

²⁰¹ Ibid.

²⁰² Ibid Article 24a, para 3.

²⁰³ Andrei Marcu et al, 'The EU Carbon Border Adjustment Mechanism: Preliminary Analysis of the European Commission Proposal for a Regulation Establishing a Carbon Border Adjustment Mechanism, 14 July 2021 (European Roundtable on Climate Change and Sustainable Transition 2021) <<https://ercst.org/wp-content/uploads/2021/07/20210714-CBAM-proposal-preliminary-analysis-v4.pdf>> accessed 27 September 2022.

²⁰⁴ As correctly pointed out by Bacchus, the CBAM 'is a long way from being applied; it may be modified along the way, and precisely how it would be applied to individual traded products in particular factual circumstances cannot be foreseen. Nor can we foresee which of those products and circumstances would give rise to claims against the EU in WTO dispute settlement.' Bacchus (n 76) 3. Pauwelyn and Kleimann also importantly explain that, because 'there are no "precedents" and WTO provisions are vague', it is 'very difficult to predict whether a particular carbon adjustment mechanism would be WTO consistent'. Pauwelyn and Kleimann (n 122) 5. Similar considerations apply when it comes to assessing the CBAM under climate change law.

design features, their anticipated effects and their consistency with the stated overarching purpose of addressing carbon leakage. Based on this analysis, it is possible to offer a few reflections.

First, current design choices are seemingly geared towards trying to make the CBAM fit to comply with WTO rules on non-discrimination under the assumption that the requirement to surrender CBAM certificates could be considered as an internal regulation falling under Article III:4 GATT. The preference for actual embedded emissions and the use of default values as a last resort, the proposal that the CBAM ‘mirrors’ the EU ETS when it comes to the price and the number of CBAM certificates to be purchased (by imposing the weekly average EUA price and adjusting the amount of CBAM certificates for the amount of EUAs allowances allocated for free), and the choice to credit explicit carbon pricing policies of other countries are all elements that arguably purport to strengthen the case for a CBAM that is strictly aligned to the equalisation logic legitimising the very idea of a BCA under WTO rules in the first place while making advantage of the relatively more lenient regime of Article III:4 as compared to Article III:2 (and Article II:1) GATT. Further, the choice of applying the CBAM generally to imports coming from any country (including LDCs and small island developing States), except for those with an ETS linked to the EU ETS so that the same carbon price applies (and hence, in practice, the ‘exemption’ can be equated to crediting for such carbon price as it is envisaged more generally for explicit carbon pricing policies imposed in third countries) arguably aims at defending this equalisation logic with respect to the ‘external’ facet of the non-discrimination principle, that is, the most-favoured-nation clause under Article I GATT. It remains at best doubtful, however, whether the CBAM as it stands could practically have a chance to be considered compatible with WTO rules on non-discrimination for the reasons explained above.

Second, and connected to that, the CBAM proposal pervasively attempts to show that the equalisation logic at the basis of the mechanism is intended to be instrumental to its overarching climate purpose. In this respect, there should be extreme caution with regard to design options that may compromise the environmental effectiveness of the CBAM, such as the inclusion of export rebates, or in stressing the temporary nature of sub-optimal design elements from an environmental perspective, for instance in the case of the pitfalls coming out of maintaining free allocation in the EU ETS, even when matched with correction mechanisms aimed at avoiding double protection for EU industries. This is arguably also the rationale behind the choice to exempt imports coming from countries with an ETS linked to the EU ETS which, in itself, would likely compromise the compatibility of the CBAM with the most-favoured-nation treatment obligation, but appears compatible, at least in principle, with the carbon leakage narrative informing the CBAM. It is debatable, however, whether the proposal as it stands succeeds in achieving the right balance between straight equalisation-informed features (i.e., features that are relevant from the purposes of assessing the CBAM under the non-discrimination principle) and features that more directly purport to reinforce a defence of the CBAM under Article XX GATT.

Third, the analysis shows that those design features that are most likely to make the difference between a CBAM that could pass the two-tier test of Article XX GATT and a CBAM that could not be successfully justified as a legitimate climate response are also arguably instrumental to making it consistent with the approach of the Paris Agreement and the UNFCCC and, in particular, with the CBDR-RC principle enshrined in international climate change law. This is true for a number of critically important (and controversial) design options, including the phase-out trajectory of free allowances, the combination of actual embedded emissions and default values for calculating import’s carbon content, the accommodation for some form of origin-based exemptions based on the existence of differentiated responsibilities and capabilities, the crediting of the carbon price already paid in third countries, and the use of revenues. In this respect, there is arguably room to further align the CBAM design to its stated carbon leakage objective: this would make it more likely to violate the non-discrimination principle under the GATT, but arguably strengthen an Article XX-based defence

while at the same time (and precisely because of it) ensuring it is consistent with the approach of the Paris Agreement and the CBDR-RC principle.

Finally, actual implementation is likely to prove difficult, and may undercut intentions with respect to both GATT and Paris Agreement consistency. Evidence on the California experience with a subnational BCA suggests that it will be problematic at best, under such a framework, to clearly identify emissions linked specifically to trade flows into Europe. In addition, the burden on firms in terms of compliance and evidentiary costs may well lead to blanket application of default rates, sterilising incentives for cross-border reductions in emissions. Combined with the very real risk of what we term upstream leakage, the stated objectives of the measure may not be realised in practice.

5. Conclusion

In this article, we have discussed the strengths and weaknesses of the CBAM proposal, as it currently stands, from a WTO and climate change law standpoint. We have also drawn on a mix of economic studies and impact assessments to inform the legal discussion, with some emphasis on the likely effectiveness of the proposal. We find that the main design choices illustrated in the proposal are relevant to assess, at least preliminarily and provisionally,²⁰⁵ what are the legal issues that are likely to arise out of the application of a carbon border adjustment mechanism linked to the EU emission trading scheme and taking the form of a notional ETS. They are also relevant to the likely effectiveness of the proposal. We argue that, in the number of cases, the options endorsed by the Commission (and by the European Parliament) are most likely to make the CBAM design not fully consistent with GATT rules on non-discrimination while at the same time significantly compromising an ‘environmental’ defence under Article XX GATT and running counter to the approach espoused by the Paris Agreement. We identify what we consider to be the most critical proposed design features in this perspective and discuss possible alternatives or variations that could better align the CBAM with its climate change purpose. Importantly, the solutions proposed go in the direction of more built-in differentiation in the CBAM design with a view to fully inform its equalisation logic by its climate rationale. By finding solutions (including reduced administrative burdens) that would at once strengthen an ‘environmental’ defence under WTO law and ensure compatibility with the Paris Agreement, a carefully designed CBAM could arguably constitute a prime example of how trade instruments could be used to support climate change policies. Or, lacking these solutions, a badly designed CBAM may fail to achieve its stated goals.

²⁰⁵ Along these lines, see Bacchus (n 76) 3.