

CBAM for the EU: A Policy Proposal



Attention please – Border carbon adjustment
Proceed with caution

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ERCST Team working on the Paper:

Dariusz Dybka, Alexandra Maratou

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Table of Contents

1.	Introduction	4
2.	Approach	5
2.1.	Methodology.....	5
2.2.	Guiding Principles and General Assumptions.....	6
2.2.1.	Objectives of a CBAM	6
2.2.2.	WTO Compliance	7
2.2.3.	No Double Protection	8
2.2.4.	Compliance	8
2.2.5.	Operationalization	8
2.2.6.	CBAM and EU ETS.....	8
2.2.7.	Pilot Phase	8
2.2.8.	Scope of Analysis	9
3.	Proposed Design.....	9
3.1.	Step-by-Step Design.....	9
3.1.1.	Coverage of Trade Flows	9
3.1.2.	Policy Instrument.....	10
3.1.3.	Geographic scope	11
3.1.4.	Sectoral Scope	13
3.1.5.	Emissions Scope.....	14
3.1.6.	Determination of Embedded Emissions	16
3.1.7.	Calculation of the Charge	17
3.1.8.	Use of Revenue.....	20
3.2.	Cross-Cutting Issues	21
3.2.1.	Treatment of Free Allocation.....	21
3.2.2.	Treatment of Indirect Costs.....	22
3.2.3.	Timeline and Sequence.....	23
3.2.4.	Review Processes.....	24

1. Introduction

An important element of the comprehensive suite of climate and environmental policies advanced under the “European Green Deal” (EGD) is the “Carbon Border Adjustment Mechanism” (CBAM). CBAM is a policy safeguard against emissions leakage, that is, the relocation of emitting activities from the European Union (EU) to third countries due to the impact of EU climate policy ambition on production and investment decisions. A legislative proposal setting out the parameters of the CBAM is expected from the European Commission by the end of June 2021 as part of the “Fit for 55” package of initiatives operationalizing the strengthened climate target under the EGD.

ERCST has accompanied the policy discussion on the CBAM with a number of activities, including research and analysis as well as extensive engagement of relevant stakeholders within and beyond the EU. Based on these activities, it has released two major reports: first, a detailed analysis of the central design choices faced when elaborating a CBAM, including alternative policy options and instrument combinations (“Border Carbon Adjustments in the EU: Issues and Options”);¹ and, second, a detailed sectoral assessment assessing sectoral particularities, such as market structure, trade flows, and decarbonization pathways, and their implications for the design and implementation of a CBAM (“Border Carbon Adjustments in the EU: Sectoral Deep Dive”).²

As the “Issues and Options” report showed, a CBAM is a highly complex instrument, and each design element offers numerous options for implementation that entail multiple trade-offs for the environmental and economic benefits of the measure as well as its technical, legal and political viability. Similarly, the “Sectoral Deep Dive” report highlighted the considerable heterogeneity across relevant sectors in terms of domestic and international production and trading patterns, the drivers of carbon cost and emissions leakage, and the pathways towards deep decarbonization. Not only has this analysis underscored that a CBAM, on its own, cannot offer a comprehensive and uniform solution to address the concerns of all sectors about emissions leakage, but it has also revealed the delicate balancing act required to mitigate the identified trade-offs.

As of now, the design parameters of a future EU CBAM are still uncertain. What the process so far – including a formal consultation process carried out by the European Commission – has unmistakably shown, however, are considerable divergences in the views of key EU stakeholders about the preferred CBAM design, and, in some cases, what they consider to be red lines.

¹ A. Marcu, M. Mehling and A. Cosby, “Border Carbon Adjustments in the EU: Issues and Options” (September 2020), available at <https://ercst.org/border-carbon-adjustments-in-the-eu-issues-and-options> (hereinafter referred to as: “Issues and Options” report).

² A. Marcu, M. Mehling and A. Cosby, “Border Carbon Adjustments in the EU: Sectoral Deep Dive” (March 2021), available at https://secureservercdn.net/160.153.137.163/z7r.689.myftpupload.com/wp-content/uploads/2021/03/20210317-CBAM-II_Report-I-Sectors.pdf (hereinafter referred to as: “Sectoral Deep Dive” report).

Likewise, early reactions from third countries, such as formal questions raised in different fora of the World Trade Organization (WTO) and the recent statement issued during a ministerial meeting of the BASIC group of countries (Brazil, South Africa, India and China), have highlighted the risk of legal and diplomatic repercussions from the European CBAM.

To meet its objectives, a CBAM proposal will have to be designed in a technically robust way. But if it is to have any prospect of actual implementation, its acceptability through its ability to secure political buy-in from domestic and foreign stakeholders will be equally, if not more, important.³

Drawing on the aforementioned ERCST activities, this report proposes a CBAM design that seeks to balance trade-offs so as to secure its environmental and competitiveness benefits while maximizing its administrative, legal and technical viability, as well as political acceptability. An elegant technical proposal that ignores political feasibility is not one that should be taken seriously.

Beyond the mere design, this proposal also addresses important procedural aspects and the timeline of implementation, which are critical for legal and political acceptability.

2. Approach

2.1. Methodology

Our methodology for assessing the various options was developed and explained in depth in two previous ERCST reports.⁴ In those we described eight design elements – key decision points at which the designer of a CBAM must choose a fork in the road that will determine the final shape of the instrument. They are:

- **Coverage of Trade Flows:** Should the CBAM cover imports only, or also exports?
- **Policy Mechanism:** What type of policy instrument is used to implement the CBAM (e.g., an ETS or a carbon tax)?
- **Geographic Scope:** Should there be national exemptions from the CBAM?
- **Sector/Product Scope:** What sectors and subsectors should be covered?
- **Emissions Scope:** What emissions should be considered in the CBAM?
- **Determination of Embedded Emissions:** How are the emissions embodied in imports determined?
- **Calculation of Adjustment:** How is the adjustment calculated?
- **Use of Revenue:** What should happen with the revenue?

The proposal set out in this report uses the foregoing design elements as a framework for describing the recommended approach. In each case, it also uses the five criteria for assessment developed previously, to highlight the strengths and weakness of the various options from the most important perspectives. They are:

³ A. Marcu and M. Mehling, “Ensuring the Acceptability of Border Carbon Adjustments” (March 2021), available at <https://secureservercdn.net/160.153.137.163/z7r.689.myftpupload.com/wp-content/uploads/2021/03/20210329-Acceptability-of-BCAs.pdf>.

⁴ See “Issues and Options” and “Sectoral Deep Dive” reports, supra, footnotes 1 and 2.

- **Environmental benefit:** Does the option prevent leakage and reduce global GHGs?
- **Competitiveness benefit:** Does the option prevent erosion of EU industrial competitiveness?
- **Technical and administrative feasibility:** Is the option implementable in practice?
- **Legal feasibility:** Does the option align with WTO law, EU law, and other areas of law (e.g. Paris Agreement)?
- **Political and diplomatic feasibility:** Would the option create political and diplomatic backlash?

The proposal is informed by ERCST's extensive prior work and consultations, including the most recent "Sectoral Deep Dive" Report. There, eight candidate sectors were considered for CBAM coverage, diving into their specific characteristics, and asking what those characteristics implied in each case for the design element choices. That report looked at market structure, environmental performance, trade patterns, and other considerations including geopolitical realities. The results showed, not surprisingly, that no one CBAM design could be ideal for all the sectors considered. The present recommendations are an attempt to find some common ground that covers the disparate challenges to the greatest extent possible, in the full knowledge that the final results will not be ideal for any individual sector. However, it also looks unrealistic to have different designs for different sectors. What may be possible is that some provisions may be slightly different, such as the value chain coverage which may differ from sector to sector.

2.2. Guiding Principles and General Assumptions

2.2.1. Objectives of a CBAM

The final shape of the CBAM will fundamentally depend on its objectives. To design a policy instrument, it is important to be clear on its objective or possibly objectives. The more issues it tries to address, the more complex the design and arguably the less focused it will be. A CBAM focused on changing trading partner behaviour, for example, would grant country-based exemptions for ambitious foreign climate policies. A CBAM focused on preventing leakage would not – it would focus instead on the goods coming from those countries, granting special treatment (if any) to those goods with the lowest greenhouse gas (GHG) intensities, regardless of national policies in their countries of origin.

Historically, a border carbon adjustment (BCA) has not been an approach favoured by the EU. The risk of carbon leakage from the EU ETS has therefore been addressed through free allocation, and most jurisdictions around the world with emissions trading systems (ETS) have adopted the same or a similar approach. California, always a pioneer, introduced a BCA for out-of-state electricity, but attempts to expand this approach to other sectors have proven unsuccessful.

The Paris Agreement, the EGD and increasingly stringent EU mitigation targets have resulted in growing scarcity and dramatically higher prices of EU emission allowances (EUAs). Coupled with predictions that the EU ETS would run out of free allocation before the end of the decade, this has led to a change of political heart. The notion of a CBAM was first introduced by the incoming President of the European Commission, Ursula van der Leyen, in her Political Guidelines of 16 July 2019 as follows: "To complement this work, and to ensure our companies can compete on a level playing field, I will introduce a Carbon Border Tax to avoid carbon leakage. This should be fully compliant with World Trade Organization rules. It will start with a number of selected sectors and be gradually extended."

Since then, slight variations in the portrayal of the CBAM have appeared in various European Commission documents as well as the conclusions of the EU Council.

The focus has very much been on preventing carbon leakage as an objective, with references to preserving competitiveness and ensuring that third countries will adhere to the highest environmental standards.

Objectives have also been highlighted in other official documents released by the European Commission, including the public consultation that took place in the second half of 2020. In addition, other documents and various senior officials from EU institutions have referred to the amount of revenue expected from a CBAM – with an amount of “€5 to 14 billion” mentioned at one point – and its preferred use as a contribution to the EU’s own resources. In a public event, European Commission Executive Vice President Frans Timmermans expressed his view that a EU CBAM would make other countries to adopt higher levels of climate ambition, making a CBAM unnecessary and redundant. And finally, but not unimportant, what is heard more and more is that a CBAM would also make free allocation redundant and allow for its termination, which has been a long-term objective for some stakeholders, and a trend since the start of the EU ETS.

This results in a large list of objectives for the CBAM, an untested instrument that is now thrown in the spotlight and expected to address a series of important issues with significant implications, namely to:

- avoid carbon leakage;
- address competitiveness concerns;
- allow the EU to increase its level of ambition;
- motivate and nudge other countries to increase their pledges under the Paris Agreement to match that of the EU;
- eliminate free allocation;
- and generate revenue.

For the purposes of the CBAM proposal elaborated in this paper, the objective of a CBAM is to avoid carbon leakage by creating a level playing field where carbon emissions embedded in imported products are subject to the same carbon cost as the emissions of domestic producers subject to the EU ETS.

The environmental objective of avoiding carbon leakage has to be the primary motivation, but it is inevitably linked to the loss of competitiveness, not only in the domestic, but also in international markets, that leads to carbon leakage.

It must also be made clear that it is well understood that competitiveness is not to be equated with the impact of carbon pricing, that it is just one of a number of issues affecting competitiveness.

2.2.2. WTO Compliance

As seen in Section 2.2.1, the documents and statements originating in EU institutions and decision makers emphasise the importance of ensuring that the CBAM will be WTO compliant.

This conviction flies somewhat in the face of what was for a long time a generally accepted idea that a BCA would risk contravening WTO rules, and which justified for many years the reluctance of EU institutions to engage in discussions on and consider a BCA.

However, in many aspects of societal life, the Paris Agreement and the climate momentum have made what seemed impossible an option. Climate change is seen by many as an existential threat that has justified changing conventions and requiring extraordinary measures. In this context, interpretations of what is and what is not aligned with WTO may change in the future.

Some of the proposed CBAM design features in this report, such as the solution to leakage in relation with exported products, are based on an interpretation of current rules under the WTO, where the WTO Agreement on Subsidies and Countervailing Measures (ASCM) preclude export rebates in connection with an ETS. Should that interpretation change, solutions other than the proposed continuation of free allocation can become viable.

2.2.3. No Double Protection

As outlined in Section 2.2.1, the CBAM is meant to help avoid carbon leakage by levelling the playing field and striving to ensure that the same carbon cost is paid for each ton of carbon embedded in products sold in the EU, no matter where they are produced. However, the reverse, and a fundamental principle, is that a ton of carbon in products imported into the EU cannot be charged more than what is charged on domestically produced goods. There can be no “double protection”, as this notion has come to be referred,⁵ or, in other words, domestic producers cannot end up being better off than foreign producers. As with many principles, this principle should not be broken, but also its application should be agnostic and not driven by ideology.

2.2.4. Compliance

For clarity purposes, this paper assumes that the obligation to meet CBAM compliance obligations will be on the importers of goods in the EU and not on exporters to the EU.

2.2.5. Operationalization

A CBAM is a complex operation which will have far-reaching economic and trade implications. Also, depending on how it is designed and deployed, it is likely to require a significant level of administrative effort, as well as possibly EU and/or international institutional changes in order to operationalize. It is unlikely that a CBAM can be deployed with existing administrative structures, meaning that new structures may need to be created.

2.2.6. CBAM and EU ETS

A CBAM is being considered as a policy instrument to address the risk of carbon leakage resulting from the carbon cost imposed on European emitters under the EU ETS. It is thus a companion policy to the EU ETS, and does not consider other costs incurred by EU producers as a result of additional policies and measures in place in the EU to address climate change directly or indirectly.

Conversely, a CBAM will impact the functioning of the EU ETS, and its impact will need to be considered in the review as part of the “Fit for 55” package. For illustration purposes, it is possible that importers may hedge their CBAM obligations with EUAs in the market.

2.2.7. Pilot Phase

Deploying a CBAM marks an important step, and like the deployment of the EU ETS in 2005 carries a certain amount of risk, both to the viability of EU producers whose sectors are covered by it, as well as to the

⁵ See, for instance, para. 14 of European Parliament, Resolution of 10 March 2021 towards a WTO-compatible EU Carbon Border Adjustment Mechanism (2020/2043(INI)), available here: https://www.europarl.europa.eu/doceo/document/TA-9-2021-0071_EN.html.

communities relying on those sectors. In addition, it is a tool that comes with very limited practical experience, having only been deployed once at a subnational level so far.

All this argues in favour of a pilot phase which may, in certain aspects, differ from what the final design of a CBAM may be. A pilot phase offers an opportunity to err on the side of safety, and should not be seen as a period to take risks – instead, it allows for gradual and cautious introduction of approaches that need to be tested. For illustration purposes, careful examination of the value chain coverage is important, as it could lead to a significant amount of loss of competitiveness and carbon leakage downstream, and risk a potential move outside the EU of the rest of the value chain.

One of the considerations in a pilot phase should be the degree of international controversy triggered by a CBAM, which can be minimised by using trade intensity as one of the guidelines for determining the scope of participating sectors.

2.2.8. Scope of Analysis

Although this analysis fully recognizes that a CBAM is not a “silver bullet” and will need to be complemented by other policy instruments, the scope of this paper is limited to describing the design elements of a model CBAM. A subsequent ERCST report as part of this project will analyse the role of a CBAM as part of a broader framework of necessary complementary instruments.

3. Proposed Design

3.1. Step-by-Step Design

3.1.1. Coverage of Trade Flows

<p>During the pilot phase, the proposed CBAM covers imports with leakage related to exports addressed through continued free allocation to European producers for both domestically consumed and exported products. In order to avoid double protection, the proposed CBAM is only imposed for the share of embedded emissions above the benchmark for free allocation. A review process will assess the continued viability of this approach and identify potential alternatives prior to the end of the pilot phase.</p>				
Environmental Benefit	Competitiveness Benefit	Technical & Administrative Feasibility	Legal Feasibility	Political & Diplomatic Feasibility
Relatively greatest benefit due to maximum emissions coverage	Levels the playing field in the domestic market; free allocation addresses exports	Somewhat complex to implement due to data gaps and jurisdictional limitations	Strong case under Article XX GATT for CBAM, but ASCM risk for free allocation	Diplomatically controversial as a unilateral measure with extraterritorial effects, combined with free allocation

Description: In terms of trade flow, a CBAM can adjust for uneven climate policies when foreign goods are imported, when domestic goods are exported, or a combination of both. In its consultation on the CBAM, the European Commission focused on imports, but also mentioned the “possibility to grant a rebate to EU exporters” if it is “necessary to achieve the objective of reducing the risk of carbon leakage”. The proposed CBAM covers only imports entering into the EU, but acknowledges that such limited trade flow coverage

may exacerbate leakage risks facing exported EU products sold in foreign markets: because European products are, on average, less carbon intensive than foreign products – an asymmetry that is set to expand as the European Green Deal is operationalized – loss of market share in foreign markets will result in a net increase of global emissions. Rather than introduce a rebate for exports, however, that risk can be addressed by maintaining a declining free allocation for both domestically sold and exported European products during the pilot phase (see Section 3.3.1). Consequently, to avoid double protection, the proposed CBAM is only imposed on that share of emissions embedded in imported goods that exceeds the European benchmark for free allocation, and for which the average producer has to purchase allowances. A review process assesses the continued viability of this approach and possible alternatives before the end of the pilot phase.

Rationale: Coverage of imports under a CBAM is virtually a given, and aligns with political statements and stakeholder expectations in the CBAM debate. All else being equal, it also offers the greatest environmental benefits and raises the least legal concerns. Because it has to be imposed on goods produced abroad, it raises technical and administrative challenges, but these are surmountable (see, in particular, Sections 3.1.6 and 3.1.7). Moreover, coverage of imports affects foreign producers and their competitiveness in the European market, and is therefore likely to invite diplomatic challenges. A design option that has invited greater debate – and is considered a political red line by many stakeholders – is the treatment of exports. Offering a rebate that is conditional on export, however, not only weakens the environmental effectiveness of the CBAM, but also raises serious risks under the WTO Agreement on Subsidies and Countervailing Measures (see “Issues and Options” Report, Section 3.3.2). Continued, but declining free allocation (as described in Section 3.2.1) retains the benchmark-induced incentive to improve environmental performance, without the legally vulnerable conditionality on export. Free allocation is itself at risk of legal challenge, however, and should therefore not be seen as a permanent solution (see Section 3.2.1).

3.1.2. Policy Instrument

The proposed CBAM accompanies the EU ETS, with importers obliged to purchase allowances from a virtual pool rather than actual EUAs. The price of virtual EUAs (VEUAs) will be the price of EUAs. The virtual pool is uncapped. The impacts of hedging on the ETS need to be taken into account in future reviews of the EU ETS and its market stabilization reserve.				
Environmental Benefit	Competitiveness Benefit	Technical & Administrative Feasibility	Legal Feasibility	Political & Diplomatic Feasibility
No major differences from an environmental benefit perspective	Unlikely that an ETS-linked CBAM could cover exports, hence reliance on continued free allocation in the pilot phase	Much more feasible than switching from existing ETS to a tax	Under EU law, easier to elaborate than a tax. More straightforward to grant WTO-compliant treatment under a tax	No major differences from an international perspective

Description: The European Commission, in announcing its consultations on the CBAM, suggested that it could take any of four forms:

1. It could extend the ETS to imports;

2. It could extend the ETS to imports, but have imports purchasing VEUAs from a virtual pool of allowances;
3. It could levy a border carbon tax on carbon-intensive imports; or
4. It could establish an EU carbon tax for carbon-intensive goods (VAT or excise duty) that would also apply at the border.

The CBAM proposed here acts as an accompaniment to the existing EU ETS (see Section 2.2.4). This involves extending the EU ETS such that it also covers imports, which can best be done as described in option 2 above: through a virtual pool of allowances (VEUAs).

The CBAM would oblige importers to purchase a quantity of VEUAs sufficient to cover the embodied carbon in the goods they import for the purpose of sale on the European market (see Sections 3.1.6 and 3.1.7). The virtual pool of allowances from which they would draw is uncapped. Importers pay a price per VEUA that is the price of EUAs at the time of import. This means that importers need to hedge themselves against fluctuating EUA/VEUA prices, just as many now do against foreign exchange risk. The impacts of this additional hedging need to be taken into account in future reviews of the ETS and its Market Stabilization Reserve (MSR).

Rationale: The EU has a functioning EU ETS, evolved over three phases and now into its fourth. It is the cornerstone of the EU climate change policy and it recommending another instrument would simply be unrealistic, with so much invested in this one. For these reasons we recommend that the carbon border adjustment should take the form of an extension of the ETS.

Forcing importers to purchase EAUs would introduce complications to the regime. To avoid a liquidity crunch and price increases, the resulting increase in demand for EUAs would have to be accompanied by adjustment to the ETS cap, which is at best complex to do. A virtual pool of allowances avoids these problems. It might seem imbalanced that the virtual pool should remain uncapped while the total available number of EUAs drops. But the link between VEUA prices and EUA prices would ensure that both importers and domestic producers face the same incentives as the cap winds down. Based on the pilot phase, there should be a review of the experience of having importers use an uncapped virtual pool of allowances.

3.1.3. Geographic scope

The only national exemptions from the coverage of the proposed CBAM are for least developed countries, small island developing states, and states with whom the EU has linked emissions trading systems.				
Environmental benefit	Competitiveness benefit	Technical & Administrative Feasibility	Legal Feasibility	Political & Diplomatic Feasibility
Very slight risk of leakage to LDCs and SIDS; none to countries with linked ETS.	Very slight risk of loss of competitiveness to LDCs and SIDS; none to countries with linked ETS.	The exemptions themselves would be straightforward. Monitoring against the risk of trans-shipment would be more difficult,	Country-based exemptions are a violation of GATT Art. I. Very likely saved by either GATT Art XX or	Should not cause major controversy

		but would use existing institutions.	the Enabling Clause.	
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Description: A CBAM could be elaborated to cover products from all countries without exception, or could contain national-level exemptions. To be clear, this is a separate question from the possibility of adjusting the border charge for some countries to account for their carbon pricing (see Section 3.1.7), or granting credit to individual producers based on demonstrated performance at their facilities (See Section 3.1.6). These are ways in which the CBAM’s coverage could be adjusted or moderated. The question of geographic scope asks, rather: should any country be exempted from coverage in the first place?

The proposal outlined here exempts least-developed countries (LDCs) and small island developing states (SIDS) from coverage. It also exempts states with which the EU has linked emissions trading systems. It does not offer any other country-based exemptions.

Rationale: The exemption for LDCs and SIDS is justified on several grounds. Special treatment for these states is an operationalized principle in both the UNFCCC (the principle of common but differentiated responsibilities and respective capabilities) and the WTO (the principle of special and differential treatment), though with different formulations. The WTO recognizes that one of the goals of the multilateral trading system is to ensure that developing countries, and especially the least developed among them, secure a share in the growth in international trade commensurate with the needs of their economic development. And the UNFCCC principle rests on the notion that such countries have contributed the least to global climate change, but have the least means by which to address it. Many, in particular SIDS, are also at the front lines of adverse impacts from climate change. Moreover, very few covered goods would be produced in LDCs and SIDS, so the risks of leakage are low. While such an exemption may constitute a GATT Article I most-favoured-nation treatment (MFN) violation, it would likely enjoy consensus support, and could probably be allowed by means of the WTO’s *Enabling Clause*.⁶

Countries with whom the EU has a linked ETS are not subject to adjustments. This is based on the assumption that any linked ETS will impose on its producers equivalent costs to those being imposed by the EU ETS, and thus trade with those countries holds no risk of leakage. As noted above, country-based exemptions are a violation of GATT’s Article I, but exempting linked ETS would almost certainly be allowed under one of GATT’s Article XX environmental exceptions.

The proposed CBAM does not exempt countries based on the adequacy of their climate policy ambition. Rather, meaningful ambition is ultimately credited when adjustments are made for foreign carbon pricing or non-price-based policies (See Section 3.1.7) or for the low-carbon production methods adopted by individual producers (See Section 3.1.6). Moreover, blanket national exemptions based on policy adequacy face several challenges. It would be politically and diplomatically controversial for the EU to unilaterally determine a threshold of adequate climate action that merited exemption, and would run counter to the spirit of the Paris Agreement. It is not clear how such a threshold could be determined, there being no

⁶ See https://www.wto.org/english/tratop_e/dispu_e/repertory_e/e1_e.htm.

agreed international benchmarks on which to assess adequacy of effort. And it would constitute an MFN violation under GATT Article I, with little chance of being saved under Article XX’s environmental exceptions.

Granting national exemptions of any kind raises the risk of trans-shipment of products, whereby goods produced in non-exempt countries could be routed through exempt countries and then exported to the EU to avoid the CBAM. This is not a novel challenge; it exists also within any regional trade agreement that accords tariff preferences only among parties to the agreement. In the proposed CBAM, as in those agreements, it is addressed by rules of origin regulations, and robust monitoring and enforcement regimes.

3.1.4. Sectoral Scope

The CBAM should cover any sectors or subsectors that are covered under the ETS and have been deemed under that regime as being at risk of leakage. It should expand that list to include sectors and subsectors at risk of leakage due to costs passed through to them by covered upstream sectors. The leakage determination should take into account the degree of cost pass-through, the ratio of carbon costs to the value of goods, and the degree to which goods compete on more than just price.				
Environmental benefit	Competitiveness benefit	Technical & Administrative Feasibility	Legal Feasibility	Political & Diplomatic Feasibility
High environmental benefit from preventing leakage in downstream sectors.	High competitiveness benefit from preventing low-cost competition in downstream sectors,	Difficult to devise and administer a revised definition of leakage along these lines, but not more so than other aspects of the existing ETS.	Would be a violation of GATT’s national treatment provisions – would need saving as an environmental measure under GATT Article XX.	Should not cause major controversy

Description: One of the key questions in CBAM design is what sectors and subsectors should be covered. Since the CBAM is designed as an accompaniment to the EU ETS, the CBAM design proposed here recommends including any sectors and subsectors that are identified as being at risk of leakage. In the fourth phase of the EU ETS, there are 44 such sectors identified at the 4-digit Prodcom level, including hundreds of individual goods.⁷ This paper recommends potentially expanding that list – which is based on a definition of leakage that includes only Scope 1 and Scope 2 emissions – to also include downstream sectors that are at risk of leakage as a result of increased costs passed through from covered upstream sectors. Those additional sectors would still not be eligible for the free allowances issued to upstream sectors at risk of leakage in the EU ETS—that is, the proposed CBAM does not seek to change the ETS’ definition of leakage—but they would be protected by a CBAM levied on imports of like products.

In the pilot phase, one option that should be considered is opt-in or voluntary participation. Also, an important consideration when determining the sectoral scope during the pilot phase is the potential for diplomatic backlash, which can be addressed by prioritizing sectors with low trade intensity.

Rationale: The simplest formulation of a CBAM would exactly mirror the EU ETS in terms of its coverage. Legally, the proposed CBAM is in fact an extension of the ETS to apply to imports as well as domestic sectors.

⁷ These are the sectors and sub-sectors identified as at risk of leakage by the criteria under Article 10b(1) of Directive 2003/87/EC. Another 8 sectors are identified by other Article 10b criteria.

So any sector that is obliged under the ETS to surrender allowances for its emissions should also be subject to similar requirements for imported goods. For some sectors, however, this merely shifts the risk of leakage downstream in the value chain. In sectors such as chemicals, steel, pulp & paper and aluminium, downstream buyers would be purchasing inputs at higher prices because of the ETS applied upstream as well as the CBAM applied at the border, but their foreign competitors would be purchasing cheaper inputs.

This risk of leakage is mitigated the further one goes downstream in any value chain, as the carbon costs borne by products diminish in proportion to their total value, and as goods begin to compete on more than simply price. It is also mitigated by any incomplete cost pass through from upstream producers. The sector-by-sector determinations would have to take these factors into account when assessing risk of leakage as proposed here. Obliging importers to purchase VEUAs for goods when EU producers of those same goods do not have to do so would arguably violate the non-discrimination provisions of the WTO’s GATT Agreement. Such a design feature would have to be saved by a defence under the GATT’s Article XX exceptions by recourse to its usefulness in preventing leakage – an environmental concern.

3.1.5. Emissions Scope

<p>During the pilot phase, the proposed CBAM covers direct (Scope 1) emissions and indirect (Scope 3) emissions embedded in raw material inputs that are themselves covered products. Average carbon cost pass-through rates for raw material inputs are calculated for each sector and periodically updated. Because the carbon cost passed through in electricity prices does not fully correlate with the actual carbon intensity of electricity (see Section 3.3.2), the proposed CBAM does not adjust for indirect (Scope 2) emissions from purchased electricity, heat and steam. Instead, the existing financial compensation system for indirect emissions is retained to address leakage risks related to energy cost increases. Indirect (Scope 3) emissions related to the transport of goods may be considered in future phases, especially if the sectoral scope of the EU ETS extends to shipping and other modes of transport.</p>				
Environmental Benefit	Competitiveness Benefit	Technical & Administrative Feasibility	Legal Feasibility	Political & Diplomatic Feasibility
Intermediate environmental benefit due to coverage of Scope 1 and some Scope 3 emissions	In combination with continued compensation of indirect carbon costs, this levels the playing field with regard to cost of Scope 1 and 2 emissions, as well as some upstream Scope 3 emissions	Relatively more complex due to additional data needs	Art. XX GATT: more complex than only Scope 1 emissions, but also greater environmental benefit	Relatively more controversial than only Scope 1 emissions due to additional burden

Description: Emissions associated with products are generated at various stages, and include direct emissions from the production process itself, such as process emissions and emissions from the combustion of fuels to generate heat and electricity (Scope 1), indirect emissions related to the use of electricity, heat or steam generated offsite (Scope 2), and any other indirect emissions arising during the lifecycle of a product, including emissions associated with raw material inputs or the transport of goods to market (Scope 3). All else being equal, broader coverage of emissions under a CBAM results in greater environmental and competitiveness benefits, but also increases technical and administrative complexity. In its consultation on the CBAM, the European Commission listed possible designs that “cover not only direct emissions but also include indirect emissions that occurred in the production of the electricity used to produce the product”,

that “cover the emissions of the complete value chain, not only the emissions of the last stage of production before import into the EU”, and that cover emissions “from international transport of the goods covered.”

Likewise, in its plenary resolution under the “Own Initiative” process, the European Parliament recommended that the CBAM “cover both direct and indirect emissions and therefore also take into account the country-specific carbon intensity of the electricity grid or, if data is made available by the importer, the carbon intensity of the energy consumption at the level of the installation.” For reasons outlined below, the CBAM proposed here covers only direct (Scope 1) emissions as well as certain indirect emissions, namely those upstream (Scope 3) emissions related to raw material inputs when the latter are themselves covered by the CBAM, and the embedded carbon cost has been passed through in the price of those inputs. Indirect energy-related (Scope 2) emissions are not covered, however, but are addressed through the existing methodology for financial compensation of indirect emissions (see Section 3.3.2). Likewise, indirect (Scope 3) emissions related to international transport of goods may be considered in future phases, especially if the sectoral scope of the EU ETS extends to shipping and other modes of transport.

Rationale: As a general principle, the scope of emissions covered by the CBAM should not be greater than that of the domestic climate policy it adjusts for, in this case the EU ETS. Imposing a CBAM on direct (Scope 1) emissions of foreign producers is therefore justified, because the EU ETS covers the direct process and combustion emissions of European producers. Less evident, however, is whether indirect (Scope 2) emissions from purchased electricity, heat and steam should be covered. European producers are not required to surrender allowances for indirect emissions, although they face carbon cost pass-through in the price of purchased electricity due to the inclusion of the power sector in the EU ETS. While that could justify including Scope 2 emissions in the adjustment under a CBAM (see “Issues and Options” Report, Section 3.3.5), it would also introduce a certain amount of uncertainty related to the level of cost pass-through and, more importantly, would not fully adjust for the indirect carbon cost faced by electricity-intensive European producers.

Because of the way electricity prices are determined in the European wholesale power market, based on the variable cost of the marginal generating unit in the merit order dispatched to meet demand, any carbon cost borne by that marginal unit will also be reflected in the power price paid for renewable energy if that marginal unit is based on coal or natural gas generation. Hence, the carbon costs associated with electricity are decoupled from the indirect physical emissions of electricity intensive producers (see “Sectoral Deep Dive” Report, Section 3.6). Even including Scope 2 emissions in the calculation of a CBAM would therefore not fully level the indirect carbon cost faced by European and non-European producers, which is why the proposed CBAM omits them. Instead, it relies on continued application of the existing financial compensation system for indirect emissions, where a robust calculation methodology has been applied in practice for several years, to address leakage risks related to energy cost increases during the pilot phase. Not including Scope 2 emissions has the additional benefit of significantly reducing the risk of resource shuffling.

Furthermore, the proposed CBAM covers certain upstream indirect (Scope 3) emissions, namely those related to raw material inputs when the latter are themselves covered by the CBAM and the embedded

carbon cost cannot be passed through due to high trade exposure. Including these is important when covering downstream semi-finished or finished goods, as the embedded carbon cost passed through in the price of carbon-intensive raw materials is a major and often the primary carbon cost faced by such downstream producers. Still, the rate of carbon cost pass-through is rarely 100%, and hence average carbon cost pass-through rates have to be calculated for each covered product and periodically updated.

Finally, the proposed CBAM does not cover indirect (Scope 3) emissions related to the transport of the good to market. Because the CBAM is intended to adjust for the carbon price imposed under the EU ETS, it does not adjust for transport emissions, even though these are subject to a variety of other climate policies, such as fuel taxes or tailpipe emission standards, that impose a cost on users. If the EU ETS or a related carbon pricing system expands to include modes of transport other than aviation – which has a very limited role in the shipment of goods – an extension of the CBAM coverage to transport-related emissions could become necessary. That would be the case, especially, if maritime transport is included under the EU ETS through a future amendment to its sectoral scope, as is being currently discussed. Hence, future review of the CBAM design should also consider changes to its emissions scope.

Consideration of additional indirect (Scope 3) emissions would both contravene the principle that the scope of the CBAM should not exceed that of the domestic climate policy it adjusts for, and result in administrative costs that would outweigh its environmental and competitiveness benefits.

3.1.6. Determination of Embedded Emissions

<p>The proposed CBAM assumes a default emissions intensity for imports, based on global sectoral averages. A default value should be calculated and regularly revised for each covered sector, with the opportunity for sectors to have more than one default where production method makes a significant difference to emissions. Foreign producers should be allowed to challenge the default using third-party certified data, verified to an international standard by an accredited verifier.</p>				
Environmental benefit	Competitiveness benefit	Technical & Administrative Feasibility	Legal Feasibility	Political & Diplomatic Feasibility
<p>Achieves some leakage prevention. Effectiveness moderated by assuming high-carbon imports produced at global average.</p>	<p>Achieves some prevention of competitiveness. Effectiveness moderated by assuming high-carbon imports produced at global average.</p>	<p>Assuming defaults is more feasible than demanding actual data. Calculating global average emission intensity would be somewhat difficult.</p>	<p>Allowing the default to be challenged is a positive feature from a WTO legal perspective. Assuming global average is discriminatory, but environmentally motivated.</p>	<p>Use of global average as default might be seen as punitive.</p>

Description: Rather than demanding product- or facility-specific data on embodied emissions at the border, the proposed CBAM assumes a default value for emissions intensity. Specific defaults should be calculated for each covered sector. In some cases, where different production methods have a significant influence on emission intensity (e.g., basic oxygen furnace vs electric arc furnace for steel; recycled vs primary aluminium), more than one default should be specified for a sector. The sectoral default should equal the global average emissions intensity for that sector, and should be revised on a regular basis. Individual foreign producers should be able to challenge the default if they can beat it, but to do so they should have

to furnish third-party data, certified to an agreed international standard by an accredited certifier. At the end of the pilot phase there should be a review of experience to determine whether resource shuffling is a problem, and to identify any appropriate solutions.

Rationale: Demanding actual data from importers would be punitive and probably unverifiable, given that few countries require their firms to report to the standards the EU would be demanding; the costs would be significant. That said, if the costs were worth it for an individual importer under the proposed CBAM, foreign producers should have the ability to furnish such data and be treated accordingly. That opportunity is in line with basic principles of fairness and past GATT and WTO case law, and likely would be helpful in the event of a WTO legal challenge.

Allowing individual producers to challenge the default value, however, give rise to the risk of resource shuffling.⁸ It is an empirical question whether, for any given sector, such a risk is significant. And it is not clear that such a risk is always a concern from an environmental perspective. The value of the pilot phase would be to allow the EU to assess those risks.

The proposed CBAM uses a global average carbon intensity as the default value. As a rule, the design of the CBAM should strive to administer treatment at the border no less favourable than treatment given to domestic producers. A default value based on the EU average carbon intensity would achieve this in aggregate, if not for individual cases. Still, the CBAM design recommended here opts for the global average carbon intensity, which, although more punitive than the EU average, provides stronger leakage protection, especially as the EU average continues to decline as a result of increasingly stringent EU climate policies.⁹ This allows fewer high-carbon foreign producers to benefit from assumed intensities that are lower than their actual values, but also results in higher border adjustment compliance obligations, and is therefore likely more controversial politically. It would probably also be seen as discriminatory under trade law, but its aim—preventing leakage as the EU average intensity declines—is environmental, and therefore might be “saved” by an environmental exception under Article XX GATT.

3.1.7. Calculation of the Charge

The calculation of charges at the border will reflect the principle of “no double protection.” It will be based on the product of the global average intensity, the difference between the price of EUAs and an explicit carbon price in the exporting jurisdiction, and a factor that reflects the amount of free allocation received by EU producers. If there is no explicit price of carbon in the jurisdiction where the product originates from, an implicit cost of carbon could be used, based on a negotiated understanding between the EU and the country of origin about the difference in effective carbon costs in each sector.				
Environmental Benefit	Competitiveness Benefit	Technical & Administrative Feasibility	Legal Feasibility	Political & Diplomatic Feasibility

⁸ Resource shuffling would occur if foreign producers shifted trade patterns to ship existing low-carbon production to the EU, and high-carbon production elsewhere. thereby gaining reduced adjustment at the EU border but not ultimately changing their emissions profiles.

⁹ This would be a more punitive default only if the global average emissions intensity were higher than the EU average.

Crediting of foreign policy efforts strengthens the incentive for foreign p to increase their climate policy ambition	Crediting foreign policy efforts and adjusting for free allocation reduces the compliance obligation imposed on imports.	Crediting foreign policy efforts, especially for implicit carbon costs, and adjusting for free allocation adds to the administrative burden	Crediting foreign policy efforts and adjusting for free allocation helps avoid discriminatory treatment, and strengthens the case under Art. XX GATT	Crediting foreign policy efforts and adjusting for free allocation less likely to elicit diplomatic pushback than not doing so
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Description: A CBAM is meant to address the risk of carbon leakage by ensuring that the costs for the carbon embedded in products are the same. Many foreign producers are facing carbon costs, based on an explicit price of carbon or an implicit one resulting from policies and measures. The question that arises is what amount they should be charged at the border and whether they should get any credit for costs already borne in the country of origin, and if so, how would that credit should be calculated. Lack of crediting might be faulted under the chapeau of Article XX GATT for being arbitrary and a disguised restriction on international trade.

A general concern with crediting is that it creates a risk of trans-shipment. That is, producers based in countries without stringent climate policies have incentives to route their finished goods to flow through policy-stringent countries, seeking to take advantage of the policy crediting for which they then become eligible. As noted above in Section 3.1.3, this is not an insurmountable challenge; a similar problem plagues countries that have agreed to accord each other tariff preferences, and is addressed by rules of origin regulations, and robust monitoring and enforcement regimes.

Two cases can be considered in calculating the charge at the border. One case is when the exporting country does not have an explicit carbon price. In that case, the EU and the exporting country could negotiate an agreement on the difference in total carbon costs, explicit and implicit, between the EU and the exporting jurisdiction in given sectors. If the charge at the border is based on an explicit carbon price only, then the calculation should take into account the amount of carbon that is embedded in the product and adjust that for free allocation in the EU, and the price of carbon in the exporting country. Consideration could also be given to any free allocation that the exporting jurisdiction provides, if any.

Determination of embedded emission is discussed in Section 3.1.6, which proposes using a global average sectoral carbon intensity. The resulting calculation of embedded emissions will need to be charged at a rate based on the difference between the EUA price and any foreign carbon pricing, but adjusted by a factor that represents the amount of free allocation EU producers receive, on average.¹⁰ Taking account of free allocation received upholds the principle of “no double protection”. This can be done in two ways: If free allocation is discontinued under the EU ETS, imports into the EU are charged for the full amount of carbon assumed to be included in the product, just as domestic producers also have to purchase allowances for the full amount of their emissions.

The approach described above and which this paper recommends, however, is to maintain free allocation for domestic producers, but charge importers only the amount of carbon emissions that represents the difference between actual emissions and the benchmark that determines the level of free allocation received by domestic producers.

¹⁰ In this case that factor will be (Sectoral EU average emissions intensity – Sectoral benchmark)/EU average emissions Intensity.

Rationale: The administratively simplest option is to not grant credit to foreign producers. That is, the CBAM would be levied on all foreign producers equally, regardless of the climate policies in the country of export. Not granting credit conforms to the destination principle of taxation, which mandates that goods should be taxed in the country of consumption. This is the principle that guides international practice on Value Added Taxation (VAT), for example, which is usually refunded to producers at the point of export and only paid at the point of import in destination markets. However, that regime works well only because almost all countries operate a VAT regime. A first mover in implementing BCA obviously could not count on the costs of climate policies being rebated to foreign producers at the point of export.

If there is crediting, one option is to only consider those that emerge from explicit carbon pricing, since EU producers also face a range of policies and measures in addition to the EU ETS and the cost of EUAs. Only crediting for explicit carbon costs, such as those from a carbon tax or an ETS, would be relatively simple and efficient. However, this may not fly in the face of the Paris Agreement and may lead to significant trade tensions with those that have legitimate climate policies but simply could not or chose not to use carbon pricing as an approach. Calculating the costs of other policies and measures in the EU and other jurisdictions could be challenging.

An alternative option, thus, is for the EU and the exporting jurisdiction to negotiate sectoral agreements recognizing overall carbon costs, both through carbon pricing and other policies and measures. This would be an option, but a challenging one in terms of the effort required to negotiate such agreements. For one thing, it is not easy to calculate the per-tonne cost impact of regulations such as, for example, coal phase-outs or maximum carbon intensity standards, and further to infer cost impacts for specific sectors. For another thing, it would be challenging to decide which regulations to cover. Should non-climate policies such as air quality regulations be included? They certainly have climate benefits, and incur cost for producers. Keeping abreast of all such regulatory policies across a number of trading partner countries, and calculating their cost impacts, would be administratively challenging.

But more fundamentally, it is not clear that such policies should be credited. A CBAM, as considered in this report, is a companion policy to the EU ETS, a carbon pricing regime, and is intended to address the risk of leakage imposed by the costs of that regime. As such, there is an argument for crediting carbon pricing systems in other countries, but there is no corresponding argument for crediting non-price-related policies in those countries, since the CBAM does not adjust for domestic policies of that type at the point of import. If a CBAM were to credit non-pricing schemes in foreign countries, then for consistency it should also adjust for non-pricing policies and measures in the implementing country, charging imports at the border for the costs imposed by such policies and measures on domestic producers. The approach proposed here addresses this by involving a bilateral negotiated agreement on non-carbon-price policies in both foreign countries and the EU.

If the credit at the border would be only for explicit carbon pricing in the exporting jurisdiction, then the two approaches, that is with or without free allocation, outlined above would avoid 'double protection' for domestic producers, and both provide an incentive for domestic producers to lower their carbon intensity – the first option by requiring domestic producers to cover their entire emissions with purchased allowances, a significant cost; and the second option by incentivizing domestic producers to reduce their emissions below the ambitious product benchmark reflecting the carbon intensity of the 10% most efficient producers in the EU.

The approach recommended by this paper only leads to a payment obligation for importers for the global average carbon intensity adjusted by the amount of free allocation received by EU producers. This may reduce the impact on trade flows and also reduces the exposure of EU producers to compliance costs at a

time when they will be faced with a significant call on their resources to develop and deploy low carbon technologies needed for the EU net zero target in 2050.

3.1.8. Use of Revenue

During the pilot phase and beyond, the CBAM revenue will be directed in a number of different ways: 1. Covering the administrative cost of the CBAM, which will be considerable; 2. Defraying certification costs for importers who apply to benchmark derogation and are successful; 3. Funding mitigation actions in trade partner countries affected by the CBAM; 4. Contributing to the EU budget (“Own Resources”).				
Environmental Benefit	Competitiveness Benefit	Technical & Administrative Feasibility	Legal Feasibility	Political & Diplomatic Feasibility
Allocating part of the revenue to mitigation actions offers a “double dividend” of the CBAM and strengthens its environmental benefit	Covering certification costs and mitigation projects of foreign producers weakens the competitiveness benefit	Allocating revenue to multiple uses and carrying out a process to award funding for mitigation projects adds to the administrative burden	Allocating a share of revenue to minimize the transaction cost of foreign producers and promote mitigation efforts is likely to strengthen the case under Article XX GATT	Allocating a share of revenue to minimize the transaction cost of foreign producers and promote foreign mitigation efforts is likely to reduce diplomatic pushback

Description: The design of a BCA regime must include a decision about what to do with the (potentially considerable) revenues raised. The Next Generation EU Recovery Plan foresees that a CBAM could bring additional revenues ranging from about EUR 5 billion to EUR 14 billion, and potentially more, depending on the price of EUAs.¹¹

The funds received from the CBAM will be allocated to four uses: first, to cover the administrative cost of the CBAM, which will be considerable; second, to defray the certification costs for importers who challenge the default carbon intensity value and are successful. These two uses of CBAM revenue are unlikely to consume a large share of the revenue. The remaining balance should then be allocated to funding mitigation actions in trade partner countries affected by the CBAM, for instance through a reverse auctioning process, and contributing to the “Own Resources” of the EU. While the debate across EU institutions about CBAM revenue suggest that it will be a political necessity to allocate some portion to the EU budget, this paper recommends that a significant amount be dedicated to funding international mitigation. In the end this will be a political decision, but it should also be influenced by the political optics and the impact on WTO compliance.

Rationale: The most fundamental choice is whether to retain the revenues domestically or use them internationally. One fundamental consideration should be how this will also be seen from a WTO perspective, as well as from the perspective of trading partners who will closely monitor the real objectives of the EU and will resent funding mitigation efforts and thus improved competitiveness of European industry or contributing to the EU budget. Using revenues to defray the costs faced by importers who choose to prove that their intensity is better than the global average carbon intensity, but only for those that are successful in their attempt, can lessen such political opposition, and also seems an equitable use of revenue.

¹¹ European Commission, “The EU Budget Powering the Recovery Plan for Europe” (27 May 2020), available at: https://ec.europa.eu/info/sites/info/files/about_the_european_commission/eu_budget/1_en_act_part1_v9.pdf.

Using part of the funds to finance mitigation actions by those that pay for the CBAM will also be seen in a positive light internationally, but may be seen by EU industry as subsidizing its competitors. Still, it is a justifiable approach overall, as it targets emission reductions and has a positive environmental impact. Moreover, it addresses the significant trade impacts the CBAM will have on non-EU producers. Revenues could, for example, be allocated through a reverse auction, or devoted to funds that help developing country producers decarbonize production, such as the Adaptation Fund, the Special Climate Change Fund administered by the Global Environment Facility, or the Green Climate Fund. It would also help to ensure that the CBAM respects the UNFCCC principle of common but differentiated responsibilities and respective capabilities (CBDR-RC).

Both options would help support the argument that the CBAM is a bona fide environmental measure, should it be forced to resort to an Article XX GATT defence.

Some revenues are retained for domestic use to pay for what could be considerable expenses in administering the CBAM. Finally, there appears to be a strong desire within the EU institutions to assign CBAM revenues to the own resources of the EU, with many indications that there is also strong political support for this approach. Politically, it will likely be impossible not to allocate at least a share of the revenue to the EU budget.

These questions are complicated in the EU context by the fact that the Member States have exclusive competence over fiscal measures. That is, they would need to agree on any general earmarking of revenues to a purpose such as international climate finance. On the other hand, since the revenues are collected at the point of entry into the common market, there could be an argument that revenue from the CBAM should accrue to the budget of the EU.

Any option that retains revenues within the implementing jurisdiction might fare worse in an Article XX GATT defence than the options that require international disbursement of revenue. But those that are targeted to support covered firms might be particularly suspect, offering evidence that the BCA regime is more about protecting competitiveness than it is about protecting the environment. From a political perspective, retaining the revenues would be far more popular domestically, and far less popular internationally.

3.2. Cross-Cutting Issues

3.2.1. Treatment of Free Allocation

Description: A pilot phase needs to be seen as a time for testing new ideas and approaches, to understand the risks involved, make adjustments and to make informed decisions if the approach is to be deployed and if so under what design and parameters.

The CBAM proposed here envisions a pilot phase during which free allocation is maintained in conjunction with the CBAM. An important reason for retaining free allocation is that it provides the only viable solution to addressing emissions leakage related to exported products from the EU, as outlined in Section 3.1.1.

For those sectors participating in the CBAM in the pilot phase, however, a gradual decrease of free allocation is proposed. This decreasing level of free allocation also needs to be seen in the context of uncertainty as to how free allocation in general will be treated in the “Fit for 55” package of legislative proposals.

The proposal also recommends making importers liable only for that portion of emissions which does not benefit by free allocation for domestic producers, as discussed in more detail in Section 3.1.7. To do

otherwise would amount to what is referred to as “double-protection”, which would go against one of the principles enunciated in Section 2.2.

It is also assumed that free allocation will stay in place for those sectors which are not covered by the CBAM during the pilot phase. Since the pilot phase is seen as lasting until at least 2027 or beyond, it is important that the “Fit for 55” package expected in June 2021 – which will include a review of the EU ETS – also ensures that there is enough free allocation until that time. This may require consideration of new approaches to free allocation, including the one currently used in California, which uses a tier-based approach for determining risk.

Based on the experience and lessons learned during the pilot phase, on the international situation after the second stock take in 2028, a more thorough review of the CBAM deployment, including the relationship between CBAM and free allocation, will be undertaken.

Rationale: In the policy debate on a CBAM, the future role of free allocation has been – and is likely to continue to be – a hotly contested issue. As such, a more in-depth examination of the relationship between free allocation and CBAM is needed, starting with the way the stakeholders see these two approaches, as well as issues that need to be considered.

Free allocation is seen by some as muting the carbon pricing signal for the industry covered by the EU ETS, by reducing scarcity, which is the difference between what is emitted and what is provided as free allocation. As such, some stakeholders have been trying to end free allocation or at least minimize its availability. Adoption of a CBAM is seen by these actors as an opportunity to do so, as it eliminates the rationale for free allocation, that is, to address the risk of carbon leakage by reducing the carbon cost exposure for EU producers.

By contrast, free allocation is seen by industry stakeholders as presenting a number of advantages: it is a familiar and tested approach, it addresses competitive concerns for both importers and exporters, and it does not force them to spend significant financial resources at a time when they see themselves as having to spend significant amounts of money to develop and deploy new technologies. As carbon prices rise, industry therefore sees free allocation as an existential issue for industrial Europe, and the CBAM as an untested approach that is being asked to tackle multiple simultaneous objectives, yet does not address the concerns of exporters, and with the actual level of the CBAM charged at the border potentially open to political pressure and international compromises.

However, what is also necessary to consider is the fact that benchmarks will continue to be tightened, leaving industry to buy that portion of their emission which is above the benchmark. At a price of €5 per EUA, and with a significant amount of overallocation in the early phases of the EU ETS, this compliance obligation may not have been a significant problem, but at €45-80 per EUA, even this residual need to purchase allowances this yield a more material amount. In addition, while the exact date is open to debate, it is likely that there is a point where the EU ETS will run out of free allocation and the cross-sectoral correction factor (CSCF) will kick in. Thus, free allocation also may not be the panacea that industry hopes it to be. Thus the choice between free allocation and a CBAM is a false one; ultimately the question is what will replace free allocation as a mechanism to protect against leakage and competitiveness impacts

3.2.2. Treatment of Indirect Costs

Description: During the pilot phase, for those sectors covered by the CBAM, a reformed system for compensation for indirect costs needs to be maintained. This also ought to be the case for those sectors not covered by the CBAM pilot phase.

Rationale: Under the EU ETS, indirect costs are the cost of carbon embedded in the cost of electricity consumed. The treatment of indirect costs under a CBAM is important due to the increase in EUA prices and increased electrification of industrial processes, which is seen as one of the main approaches to decarbonize industry.

The cost of purchasing EUAs to cover direct emissions can be addressed through a CBAM by requiring importers to hold VEUAs for embedded emissions, as this paper proposes. In the case of indirect costs, however, what needs to be addressed are costs and not emissions, and that cannot be easily addressed through CBAM.

These indirect costs for EU industry can be expected to play a role, which may not decrease in the mid-term, given the marginal pricing model applied in the EU electricity market. That model ensures that even in jurisdictions which benefit from low- or zero-carbon electricity, the cost of electricity on the grid is set by the marginal producer, which for the foreseeable future is likely to be fossil fired and includes the carbon costs incurred by the power producer. The carbon price results in higher electricity prices across the board – and regardless of carbon intensity – which in turn poses an additional cost for industry, and therefore affects the competitiveness of an increasingly electro-intensive industry.

3.2.3. Timeline and Sequence

Description: During an initial pilot phase during the first five years after its launch, the CBAM covers relevant sectors based on an opt-in approach (see Section 3.1.4). Elements of the current approach to leakage protection – including continued, but decreasing free allocation (see Section 3.2.1) and indirect cost compensation (see Section 3.2.2) – are retained during the pilot phase. Starting in the sixth year after launch of the CBAM, subsequent phases will see an expanded scope and continuous review and improvement of its design and performance. Reviewing the continued need of a CBAM in light of international developments is also enabled by this timeline, which aligns with the Paris Agreement ambition cycle to reflect the outcomes of the first “Global Stocktake” process to review climate policy effort by its parties in 2023, and the deadline for communication of new or updated Nationally Determined Contributions (NDCs) in 2025.

Rationale: Advancing from theoretical concept to a practised reality, the design and implementation of a CBAM will reveal conceptual and methodological shortcomings, prompt (as yet unpredictable) legal and political responses from domestic and foreign stakeholders, and operate in an evolving landscape of national and international climate policies, changing trade patterns, and technological change. A sequenced approach to CBAM implementation mitigates the attendant uncertainties by reducing its initial impacts on both domestic and international stakeholders (through its opt-in nature and initial retention of existing leakage safeguard measures, which significantly reduces the volume of emissions to which a CBAM applies) before subsequent phases expand the scope and impact of the CBAM. Such a pilot phase also yields additional time to review and improve system design, refine applicable methodologies and collect relevant data, meaningfully engage trade partners through consultations and negotiation, and afford trade partners more time to enact or strengthen domestic climate policies as well as foreign producers to prepare for compliance. A phased approach with periodic reviews of critical design features (see Section 3.2.4) also allows leveraging synergies with the Paris Agreement ambition cycle, and overall reduces legal risk while improving political viability both within the EU and with its diplomatic partners.

3.2.4. Review Processes

Description: An intrinsic feature of the proposed CBAM is scheduled, periodic review processes that assess its performance, the need for modifications, and the continued threat of leakage. Specifically, such scheduled reviews should periodically evaluate:

- The experience of having importers use an uncapped virtual pool of allowances and, among other things, of the impacts this may have on the market for EUAs (see Section 3.1.2);
- The scope of covered products (see Section 3.1.4), including the degree of cost pass-through, the ratio of carbon costs to value of goods, the degree to which goods compete on more than just price, and how these determine the threshold along the value chain for inclusion in the CBAM;
- The scope of covered emissions (see Section 3.1.5), including the degree of cost pass-through for carbon embedded in raw material inputs as well as the need to cover emissions associated with the transport of goods;
- The emissions intensity default values used to determine the carbon intensity of imported products (see Section 3.1.6),
- The continued need for and adequacy of free allocation of emission allowances (see Section 3.2.1), and
- The degree to which resource shuffling and other avoidance or evasion strategies have undermined the objectives of the CBAM.

Also, because the CBAM is a means to an end and not an end in itself, the evolution of climate policies in trade partners needs to be periodically assessed in order to determine the continued threat of emissions leakage and, thus, the continued need for the CBAM. Review processes are scheduled in the legal basis of the CBAM, which also sets out the applicable process, including, where relevant, notification and consultation procedures to engage stakeholders and improve the knowledge base available to decision makers.

Rationale: A CBAM is a complex policy instrument, and its practical operation will reveal important design shortfalls and implementation challenges. What is more, it will operate in a continuously evolving policy context--both as regards legal and political responses from domestic and foreign stakeholders--and in an evolving landscape of national and international climate policies, changing trade patterns, and technological change. Periodically assessing its performance relative to its objectives is therefore critical to ensure its continued alignment with its central objective of preventing leakage by levelling the climate policy playing field. That includes assessing the evolving threat of leakage and, ultimately, the continued need for the CBAM over time. Although these multiple review processes add to the administrative burden of the CBAM, they also provide an improved information base for policy decision makers through consultations and engagement, and ultimately help strengthen the acceptance and viability of the CBAM.