Centres for European Policy Network
FREIBURG | BERLIN | PARIS | ROMA

cepStudy

13 July 2021

CBAM: Damaging to Climate Protection and EU Export Industries

The EU Should Reconsider Its Project of a Carbon Border Adjustment Mechanism

Marion Jousseaume, Martin Menner and Götz Reichert

© shutterstock

The shift of production to countries with less stringent climate policy leads to job losses in the EU and more GHG emissions globally (carbon leakage). Thus, affected EU companies are currently allocated emission allowances for free. The EU Commission wants to phase-out free allocation gradually and instead make imports to the EU more expensive by a "Carbon Border Adjustment Mechanism" (CBAM) to compensate for competitive disadvantages of EU companies on the EU markets caused by the carbon costs due to EU climate policy. There are no plans to compensate EU exporters for the competitive disadvantages caused by the gradual phasing-out of free allocation.

Key Propositions

- The Commission should reconsider its CBAM project: Firstly, there are considerable concerns regarding its compatibility with WTO law. Consequently, there is a threat of international trade conflicts. Secondly, the gradual phasing-out of the free allocation of allowances without compensation for exporters significantly increases the risk of carbon leakage which would lead both to job losses in the EU and to higher GHG emissions globally.
- On the contrary, the Commission should improve the system of free allocation in order to compensate for currently persisting and newly emerging competitive disadvantages due to EU climate policy. Insofar as the Commissions insists on a CBAM for imports, free allocation of emission allowances for exports must be maintained.

Content

Executive Summary

The Carbon-Leakage-Problem of EU Climate Policy

- The EU's strict climate provisions – particularly the increasing costs for allowances pursuant to the EU Emissions Trading System (EU-ETS) – lead to significant disadvantages for EU producers in international competition. This applies to import competitors on EU markets and to exporters on non-EU markets.
- These competitive disadvantages threaten to lead to a shift of production to countries with less stringent climate policies. The consequence would be both a loss of value creation and jobs in the EU as well as higher emissions globally, as production outside the EU is mostly subject to less stringent requirements ("carbon leakage").
- To mitigate both consequences, EU producers in sectors at risk of carbon leakage are currently allocated a lump amount of allowances free of charge – based, *inter alia*, on the extent of the carbon leakage risk of the respective industry and the carbon intensity of the respective product –, with the least carbon-intensive production processes as a benchmark.

The CBAM Plans of the European Commission

- The European Commission wants to gradually phase-out the free allocation of EU-ETS allowances completely. With regard to the final phase-out, different timelines are under consideration.
- At the same time, the Commission wants to introduce a Carbon Border Adjustment Mechanism (CBAM) for certain imported products. This is intended to counterbalance the higher production costs in the EU due to its climate policy by making imports more expensive, thus compensating the phasing-out of free allocation.
- The Commission plans a CBAM in the form of a "notional ETS": Importers will be obliged to purchase "CBAM certificates", the price of which will mirror the price for EU-ETS allowances.
- According to the Commission, the "notional ETS" should also have the effect that carbon costs are passed on to consumers via higher prices ("pass through"), so that they adjust their behaviour and demand less carbon-intensive products. The Commission claims that this is currently not the case due to free allocation.
- The Commission mentions as an option, but does not support, a CBAM in the form of a "carbon consumption tax" (CCT), that both importers of products and EU producers would charge to end consumers. The tax rate of a CCT would mirror the price for EU-ETS allowances.
- So far, the Commission seems not to plan a CBAM for products of EU exporters. Consequently, they would not receive any compensation for the phasing-out of free allocation. As a result, they would suffer considerable competitive disadvantages compared to their competitors from third countries.

Requirements for a CBAM

- CBAMs must, if not solve the carbon leakage problem, at least reduce its risk compared to the current solution of free allocation of EU-ETS allowances.
- CBAMs must be compatible with the rules of the World Trade Organization (WTO), since the EU and its member states are WTO members. In this respect, the principle of non-discrimination between countries requires that products imported from third countries must not be burdened "in excess" compared to the costs products from EU producers have to bear due to EU climate policy.
- Furthermore, CBAMs should also avoid new trade conflicts with third countries as much as possible.

Assessment of the Commission's CBAM Plans

- The amount of GHG emissions caused by the production of specific imported goods cannot be determined exactly. Therefore, generalised rough estimates are necessary. Thus, CBAMs such as the "notional ETS" do not lead to a systematic reduction of carbon leakage risks with respect to imports compared to the current system of free allocations.

- A CBAM in the form of a "notional ETS" could in principle be designed in a WTO-compliant manner, in that products imported from third countries would not be burdened "in excess" compared to the carbon costs products of EU producers have to bear due to EU climate policy. However, even if the EU were to succeed in this, it is already becoming apparent that the unilateral introduction of a CBAM for imported products by the EU threatens to give rise to new trade conflicts.
- A combination of the gradual phase-out of free allocation and the restriction of a CBAM to imports threatens to lead to a significant increase of carbon leakage risks for the affected export sectors in the EU. The consequence would be a shift of production from the EU and thus a loss of value creation and jobs in the EU as well as an overall increase in global GHG emissions.
- It is not the free allocation that prevents carbon costs from being passed on to consumers ("pass through"), but competition from non-European companies. The free allocation merely compensates for the competitive disadvantages of EU producers caused by the carbon costs of EU climate policy.
- A "notional ETS" does allow costs to be passed on to consumers ("pass through"), as it then burdens imported products with carbon costs to a similar extent as the products of EU producers. However, this does not reduce GHG emissions in the EU, as these are set by the EU-ETS.
- As imported goods become more expensive, demand for carbon-intensive products from third countries falls. However, this cannot compensate for the environmental and also the economic disadvantages caused by the phasing-out of the free allocation for export sectors of the EU.
- In sum, there is consequently no apparent reason to replace the current system of free allocation of EU-ETS allowances with an CBAM for imports in the form of a "notional ETS".

Recommendations

- In view of the numerous risks, the Commission should reconsider its plan to gradually replace the current system of free allocation of allowances with a CBAM for imports in the form of a "notional ETS".
- Instead, as long as an emissions trading system cannot be implemented at the global level, the EU should cooperate closely with relevant developed and developing countries in order to establish such a global system. Only under this condition the free allocation could be phased-out, as any remaining competitive disadvantages for EU producers is manageable.
- If this also fails, the free allocation system currently in place must be maintained. Its compatibility with WTO rules has not been challenged by third countries so far, and it has not triggered any trade conflicts.
- If the Commission goes through with its plan to introduce a CBAM in the form of a "notional ETS", the free allocation of allowances for exports from the EU must be maintained. The free allocation for import competing products can be phased-out. This could be made WTO-compliant by ensuring that the CBAM for imports and the free allocation for exports do not overcompensate for the carbon costs of EU producers.
- Alternatively, a CBAM in the form of a "carbon consumption tax" (CCT) – which is not supported by the Commission – could be considered. Since it burdens importers and their EU import competitors equally, but only the latter have to bear the carbon costs of the EU, the free allocation must also be maintained for EU import competitors. The risk of trade conflicts is lower than with the "notional ETS". However, the fact that a new tax would be introduced speaks against a CCT.
- Against this background, both a "notional ETS" and a "carbon consumption tax" are to be rejected. As long as it is not possible to establish an ETS at the global level covering as many countries as possible, the EU should not phase-out the existing system of free allocations but, on the contrary, improve it in order to compensate for currently persisting and newly arising competitive disadvantages due to the carbon costs of EU climate policy.

1 Introduction

In view of its international obligations under the UN Paris Climate Agreement,[1] the EU wants to increase its efforts to reduce the emissions of greenhouse gases (GHG) like carbon dioxide (CO_2).[2] Given the prospect of significantly rising costs for GHG emissions induced by EU climate policy, the European Commission deems the introduction of a "carbon border adjustment mechanism" (CBAM) necessary to ensure "that the price of imports reflects more accurately their carbon content"[3], i.e. the GHG emissions associated with their production. In essence, the envisaged CBAM is intended to create a level playing field by diminishing – or "adjusting" – the price difference between European products and comparable goods from third countries with less stringent and costly climate policies. Its main aim is to prevent the shift of carbon-intensive production from the EU to third countries due to the competitive disadvantage of the EU economy caused by higher carbon prices, which overall would increase global GHG emissions ("carbon leakage"). The Commission plans to publish its proposal for a CBAM in July 2021 and strives for its implementation by January 2023.[4] According to a preliminary draft proposal for the CBAM regulation which was leaked in June 2021,[5] the Commission favours the establishment of a CBAM mirroring the carbon price of the EU Emissions Trading Systems (EU-ETS) on goods of certain sectors imported to the EU from third countries.

The planned introduction of a CBAM poses various significant challenges and incites contentious discussions regarding its objectives, design, compatibility with international trade law pursuant to the World Trade Organization (WTO), economic and environmental implications, technical feasibility, and potential for international conflicts. Given this complexity, the positions on the general concept of a CBAM and its specific design vary considerably between stakeholders.[6] In March 2021, the European Parliament adopted a resolution calling for the adoption of a CBAM.[7] Although EU Members States have "invited" the Commission "to consider" a CBAM in principle,[8] they show different approaches in this respect.[9] For example, while France has been a strong proponent of a CBAM since 2006, Germany has not endorsed an official position yet and stresses the need for "an open-ended examination of all options", also including "possible alternatives" [10] to a "classic border adjustment"[11].

---

1 UNFCCC, Update of the Nationally Determined Contribution of the European Union and its Member States of 17 December 2020 [this and all further links accessed on 9 July 2021].

2 EU Commission (2019), Communication COM(2019) 640 of 11 December 2019, The European Green Deal; on this Reichert, G. (2019), A European Green Deal, cep**Adhoc** of 26 November 2019; European Council (2019), Conclusions of 12 December 2019; Council (2021), Press Statement of 5 May 2021, European climate law: Council and Parliament reach provisional agreement.

3 EU Commission (2019), Communication COM(2019) 640 of 11 December 2019, The European Green Deal, p. 5.

4 European Council (2020), Conclusions of the Meeting on 17–21 July 2020, pt. 147.

5 EU Commission, Proposal for a Regulation of the European Parliament and the Council on the establishment of a Carbon Border Adjustment Mechanism [in the following: "CBAM-Draft-Regulation (Leak of 3 June 2021)"]; available at Euractiv of 3 June 2021, LEAK: EU's carbon border tariff to target steel, cement, power.

6 EU Commission (2020), Public Consultation on CBAM (22 July – 28 October 2020); ERCST (2020), Summary of stakeholder responses to the public consultation for a border carbon adjustment in the EU.

7 EU Parliament (2021), Resolution (2020/2043(INI)) of 10 March 2021, A WTO-compatible EU carbon border adjustment mechanism.

8 European Council (2020), Conclusions of the Meeting on 10–11 December 2020, pt. 17.

9 ECFR – European Council on Foreign Relations (2021), Europe's Green Moment, p. 9 et seq.

10 Council of the EU (2020), Conclusions of the Meeting on 25 June 2020, Annex: Joint Statement by Germany, Belgium, Hungary and the Czech Republic.

11 German Position on the Fit for 55 package of 27 May 2021, leaked on 7 June 2021 [in the following: German-CBAM-Position (Leak of 7 June 2021)], available at Euractiv of 7 June 2021, LEAK: Germany backs carbon pricing extension in EU climate policy overhaul.

This cep**Study** contributes to the ongoing discussion by focusing on key questions the introduction of a CBAM raises. After defining essential elements of a CBAM and relevant terms in general (section 2), the potential features of a CBAM specifically considered by the Commission[12] regarding its objectives and instrument options will be outlined (section 3). Following an overview of current discussions of the Commission's upcoming CBAM proposal (section 4), significant challenges for these options with respect to their compatibility with WTO law (section 5) and their economic, environmental, technical and political implications (section 6) will be assessed. Based on our conclusion regarding the WTO compatibility as well as the economic, environmental, technical and political implications of import and export CBAM instruments, we finally recommend steps for the further approach of the EU (section 7).

2 General Definitions and Terms

In the following, the essential elements and terms regarding "Border Tax Adjustment" as defined by the WTO, a Carbon Border Adjustment Mechanism (CBAM) as envisaged by the Commission and the relevant aspects of the EU-ETS will be briefly outlined.

2.1 Border Tax Adjustment and CBAM for Imports and Exports

In general, the CBAM envisaged by the Commission qualifies as a "border tax adjustment" (BTA) as defined by the WTO. In principle, it is an essential characteristic of national sovereignty that states are free to operate their fiscal regimes according to national preferences and constraints.[13] As members of the WTO, however, they are subject to WTO rules governing the application of domestic taxes and charges to goods traded internationally. Accordingly, BTAs are "any fiscal measures which put into effect, in whole or in part, the destination principle", pursuant to which taxes on products are levied in the country where they are consumed.[14] In essence, a BTA aims at ensuring the "competitive equality between domestic and imported products" by creating a level playing field for competing products traded internationally ("trade neutrality").[15] A BTA can be achieved either "by imposing domestic taxes and charges on imports" into the EU domestic market ("import BTA"), or by "exempting or reimbursing them on exports" entering the world market ("export BTA").[16] An entire "BTA mechanism" may theoretically consist only of "import BTAs", only of "export BTAs" or of a combination of both measures.

Given that not only "taxes" in the strict technical sense, but "any fiscal measures" charging a product could qualify as BTAs, we will use the term "border adjustment" to avoid confusion. Furthermore, the adjustment does not necessarily have to take place at the border itself but could also be conducted after a product has crossed it. However, the adjustment is to be made "because" the product crossed a border, whether to be imported or exported.[17]

---

12 EU Commission (2020), Inception Impact Assessment of 4 March 2020.

13 GATT Working Party (1997), Note WT/CTE/W/47, §§ 24–26.

14 GATT Working Party on Border Tax Adjustments (1970), Report L/3464 [in the following: GATT Working Party (1970), Report L/3464], § 4. The destination principle "is to be distinguished from the origin principle whereby the products are taxed in the country of production"; GATT Committee on Trade and Environment (1997), Note WT/CTE/W/47 by the Secretariat on Taxes and Charges for Environmental Purposes – Border Tax Adjustment [in the following: GATT Note by Secretariat (1997), Note WT/CTE/W/47], § 28. Pursuant to the origin principle, "products destined for export are to pay the tax charged in the domestic market and imported products are exempted from paying any taxes as they would have been paid at their point of origin"; GATT Group on Environmental Measures and International Trade (1994), Note TRE/W/20 by the Secretariat on Border Tax Adjustment, § 2.

15 GATT Working Party (1970), Report L/3464, § 9; GATT Note by Secretariat (1997), Note WT/CTE/W/47, § 24.

16 GATT Working Party (1970), Report L/3464, § 4; GATT Note by Secretariat (1997), Note WT/CTE/W/47, § 24.

17 GATT Working Party (1970), Report L/3464, § 5; GATT Note by Secretariat (1997), Note WT/CTE/W/47, § 25.

In the following, a border adjustment which is specifically based on the GHG emissions associated with products will be referred to as a – import or export – "carbon border adjustment". Accordingly, an "import CBAM instrument" aims at creating a level playing field in the EU market by requiring importers to pay carbon costs equivalent to those EU producers have to bear. Similarly, an "export CBAM instrument" aims at putting EU producers on equal footing with producers from third countries in the world market by stripping exports off the carbon costs EU producers have to bear due to EU climate policy. The introduction of a CBAM by the EU, may in principle consist (1) only of an "import CBAM instrument", (2) only of an "export CBAM instrument" or (3) of a combination of import and export border adjustment instruments.

2.2 European Emissions Trading System (EU-ETS)

The CBAM envisaged by the Commission is especially concerned with the rising carbon price[18] induced by the EU-ETS.[19] Accordingly, every operator of an installation belonging to a sector which is covered by the EU-ETS must hold emission rights ("allowances") for its planned GHG emissions. One allowance gives the owner a right to emit GHGs. The EU-ETS aims to reduce the domestic GHG directly emitted from the territory of the EU ("territorial emissions") through a "cap & trade" system. Accordingly, the amount of allowances – and consequently the absolute amount of territorial GHG emissions permissible within the EU – is limited ("cap") and constantly reduced in order to reach the EU climate targets. Operators of the installations covered by the EU-ETS must surrender the number of allowances corresponding to the emissions of their production. Allowances are tradeable ("trade"). The EU-ETS is environmentally effective because the cap guarantees that the intended emissions reduction and hence the climate targets are actually reached. The EU-ETS is also economically efficient because it is left to the companies themselves to decide whether they want to buy allowances or, if this is cheaper, to reduce their GHG emissions, e.g. by investing in more efficient and less carbon-intensive technologies. Thus, GHG emissions are abated or reduced where this can be achieved at the lowest cost.[20]

3 CBAM Objectives and Options Under Consideration

In the following, the main objectives of the CBAM in general and the specific options for import and export CBAM instruments currently considered to varying degrees by the Commission according to its Inception Impact Assessment of 4 March 2020[21] and its preliminary CBAM-Draft-Regulation leaked on 3 June 2021 [22] will be presented.

3.1 CBAM Objectives

Current discussions on the introduction of a CBAM by the EU highlight various potential objectives of this instrument, addressing different, partly interlinked problems related to the rising costs caused by EU climate policy in the context of international trade with carbon-intensive products.[23] There is wide

[18] Ember, Daily EU ETS carbon market price.

[19] Directive 2003/87/EC of the European Parliament and of the Council to enhance cost-effective emission reductions and low-carbon investments [hereinafter: EU-ETS Directive 2003/87/EC]; see generally Bonn, M. / Reichert, G. (2018), Climate Protection By Way of the EU-ETS, cep**Input** 03/2018.

[20] Bonn, M. / Reichert, G. (2018), Climate Protection By Way of the EU-ETS, cep**Input** 03/2018, p. 13.

[21] EU Commission (2020), Inception Impact Assessment Ares(2020)1350037 of 4 March 2020; see also Englisch, J. (2020), A Carbon Border Adjustment Mechanism for the EU ETS, Kluwer International Tax Blog.

[22] Available at Euractiv of 3 June 2021, LEAK: EU's carbon border tariff to target steel, cement, power.

[23] ERCST – Roundtable on Climate Change and Sustainable Transition (2020), Border Carbon Adjustments in the EU – Issues and Options [in the following: ERCST (2020), Border Carbon Adjustments in the EU], p. 16.

consensus that the main objective of a CBAM is the prevention of "carbon leakage", motivated by two interlinked concerns: the increase of overall global GHG emissions (environmental concern) due to the weakening of the international competitiveness of the EU economy (competitiveness concern).[24] In its Inception Impact Assessment of March 2020[25] and its CBAM-Draft-Leak of 3 June 2021[26], the Commission highlights that a CBAM should effectively address the risk of carbon leakage particularly caused by the allowance price of the European Emissions Trading System (EU-ETS). To this end, a CBAM should ensure that the price of imports reflects more accurately their carbon content, be complementary to the EU-ETS and transmit an appreciable carbon price signal to consumers. In addition to carbon leakage protection, further objectives of a CBAM discussed are the phasing-out of existing measures against carbon leakage, the provision of incentives for third countries to adopt "similarly ambitious" climate policies in order to reduce both overall global GHG emissions and the "carbon footprint" of the EU, and finally the generation of "own resources" to finance the EU budget.

3.1.1 Protection Against Carbon Leakage

Putting a price on GHG emissions ("carbon pricing"), e.g. by the obligation to purchase allowances for GHG emissions within the EU-ETS, intends to give companies an incentive to reduce their GHG emissions. For EU companies competing internationally, however, rising costs due to EU climate policy represent a competitive disadvantage insofar as their competitors in third countries do not have to bear comparable costs. The resulting distortion of competition and weakening of the international competitiveness of EU industries can induce "carbon leakage". In the following, the different forms of carbon leakage and existing measures against it especially within the framework of the EU-ETS are outlined.

3.1.1.1 Definition and Forms of Carbon Leakage

In general, carbon leakage refers to the shift of carbon-intensive production – e.g. of steel – together with the associated GHG emissions from the EU to third countries with less cost-intensive climate protection requirements, thereby leading to an overall increase in global GHG emissions.[27] In essence, the CBAM envisaged by the Commission aims to address the two interlinked concerns associated with carbon leakage: firstly, the overall increase in global GHG emissions ("environmental concern") and secondly, the weakening of the EU's international competitiveness ("competitiveness concern").

There are different forms in which carbon leakage can occur. One can distinguish between "direct" and "indirect" carbon leakage:

- "Direct carbon leakage": Most obvious in this respect is the relocation of carbon-intensive production along with the associated GHG emissions occurring when companies close their plants in the EU and relocate them to third countries ("relocation"). However, it is more likely that companies will reduce investments in their plants within the EU due to costs for climate protection and instead make investments in third countries ("investment leakage"). Direct carbon leakage also occurs when European companies gradually lose market share to their foreign competitors – either in the EU domestic market through higher imports into the EU ("import competition") or in the world

[24] ERCST (2020), Border Carbon Adjustments in the EU, p. 15 et seq.
[25] EU Commission (2020), Inception Impact Assessment Ares(2020)1350037 of 4 March 2020; see also Englisch, J. (2020), A Carbon Border Adjustment Mechanism for the EU ETS, Kluwer International Tax Blog.
[26] CBAM-Draft-Regulation (Leak of 3 June 2021), Art. 1(1).
[27] See generally EU Commission (2012), Impact Assessment SWD(2012) 130 of 22 May 2012, pp. 8 et seq.

market through less exports from the EU ("export competition") – thereby replacing EU production by non-EU production ("production leakage").

- "Indirect carbon leakage": If carbon pricing of fossil fuels in the EU reduces demand, as intended, their price on the world market could fall. In turn, demand in third countries with less costly climate policies could rise – which would also induce, at least in part, a shift of the associated GHG emissions from the EU to third countries.[28]

3.1.1.2 Existing EU Measures Against Carbon Leakage

Currently, EU climate legislation provides two measures for reducing the risk of direct carbon leakage within the framework of the EU-ETS:

- Companies with installations belonging to sectors covered by the EU-ETS and which are deemed to be at risk of carbon leakage due to their trade intensity with third countries and the GHG emissions intensity of their products can receive "free allowances".[29] In principle, 43% of the allowances are allocated for free. The number of free allowances a company can receive is proportional, *inter alia*, to its historic production levels, a "carbon leakage factor" depending on a sector's carbon leakage risk, and a product specific "benchmark" (based on the 10% most efficient installations).

- Since the price of EU-ETS allowances is incorporated in electricity prices and passed on to consumers, it could indirectly pose a carbon leakage risk for some energy-intensive sectors. Therefore, Member States have the possibility to pay some electricity-intensive industries a – partial and gradually decreasing – compensation for the increase in electricity prices resulting from the EU-ETS ("electricity price compensation"), provided they comply with EU State aid rules.[30]

The carbon price of EU-ETS allowances has increased considerably since 2018[31] and is expected to rise even more following the decision of the EU to raise its climate targets and reduce its GHG emissions considerably.[32] Against this background, the view is widespread that the introduction of a CBAM – as a supplement or an alternative to the existing carbon leakage measures – is necessary to compensate the competitive disadvantages of EU producers caused by the additional cost of the EU-ETS in order to prevent the shift of carbon-intensive production from the EU to third countries, which overall would increase global GHG emissions.

3.1.2 Phasing-out Existing Carbon Leakage Protection

The Commission expressly views the envisaged CBAM as an "alternative" to the existing measures against carbon leakage[33] which would gradually be phased-out. The underlying assumption seems to

---

[28] Wissenschaftlicher Beirat beim BMWi (2021), Ein CO_2-Grenzausgleich als Baustein eines Klimaclubs, Gutachten vom 22. März 2021 [hereinafter: Wissenschaftlicher Beirat (2021), Gutachten].

[29] EU-ETS Directive 2003/87/EC, Art. 10(1) and 10a; see Bonn, M. / Reichert, G. (2018), Climate Protection By Way of the EU-ETS, cep**Input** 03/2018, section 2.5.

[30] EU-ETS Directive 2003/87/EC, Art. 10a (6); see Bonn, M. / Reichert, G. (2018), Climate Protection By Way of the EU-ETS, cep**Input** 03/2018, section 2.5.5; Bonn, M. / Reichert, G. / Voßwinkel, J. (2019), Reform der Strompreiskompensation, cep**Studie**.

[31] Ember, Daily EU ETS carbon market price.

[32] Council (2021), Press Statement of 5 May 2021, European climate law: Council and Parliament reach provisional agreement.

[33] EU Commission (2020), Inception Impact Assessment Ares(2020)1350037 of 4 March 2020, p. 1; CBAM-Draft-Regulation (Leak of 3 June 2021), Art. 1(3).

be that the introduction of a CBAM would for itself put EU producers on equal footing with their foreign competitors importing into the EU. Consequently, no further protection against carbon leakage would be necessary or justified. Accordingly, the Commission seems not to consider the introduction of substitute measures against carbon leakage for the protection of EU exporters on world markets. Hence, the Commission clearly seems to focus on "import competition". The full extent of the impact of the phase-out of existing carbon leakage protection on "export competition" seems not to be taken into account appropriately. Against this background, the European Parliament[34] and some stakeholders[35] expressly call for keeping or even extending the free allocation of allowances within the EU-ETS.

These varying, and sometimes even opposing views regarding the future of free allowances arise partly from characteristics attributed – rightly or wrongly – to them:

- Opponents to free allowances attribute to them the fact that not all EU producers pass on carbon costs to the product price ultimately paid by the final consumer ("pass-through") so that the overall price signal of the EU-ETS is weakened.[36] This argument is based on a misperception. With a uniform price for a good on the world market, e.g. for steel, it is competition on world markets that forces companies as "price takers" to sell their products at this world market price and inhibits them to charge or "pass through" the allowance costs to their customers. Otherwise they would not be able to compete and lose market share, resulting in carbon leakage. Free allowances reduce allowance costs that would render the business of price taking companies unprofitable which would also cause carbon leakage.

- A second argument of opponents to free allowances is that they would take away the economic incentive for companies to reduce their GHG emissions.[37] However, abatement costs in the sectors at risk of carbon leakage are much higher than current EU-ETS prices. Consequently, these companies prefer to surrender allowances instead of investing in the abatement of GHG emissions. This holds true irrespective of whether allowances are freely allocated or auctioned. Should the allowance price rise above abatement costs, even freely allocated allowances will provide incentives to abate GHG emissions since companies can sell the allowances that they do not need anymore for GHG emissions and use the revenues to cover their abatement costs.

- A third argument of opponents to free allowances is that a CBAM is a "better instrument" to avoid carbon leakage than the free allocation of allowances.[38] However, studies cited to confirm this proposition show only that a CBAM could reduce "by one-third to one-half carbon leakage rates"[39] but not totally eliminate the risk of carbon leakage.[40] Furthermore, these studies do not compare a CBAM with free allowances that have performed rather well until now to prevent carbon leakage, especially in view of the fact that there is no full allocation of free allowances.

---

[34] The European Parliament voted in plenary to maintain the free allocation of allowances; see EU Parliament (2021), Resolution (2020/2043(INI)) of 10 March 2021, A WTO-compatible EU carbon border adjustment mechanism, pt. 12.

[35] For example: DIHK (2020), Leitlinien zu CO_2-Grenzausgleichsmechanismen; BDI(2021), Grenzausgleichsmaßnahmen sind kein Wundermittel.

[36] L'Heudé, W. et al. (2021), A Carbon Border Adjustment Mechanism for the European Union, Trésor-Economics 280, p. 7.

[37] Id.

[38] Id.

[39] Droege, S. / Fischer, C. (2020), Pricing Carbon at the Border: Key Questions for the EU, ifo DICE Report I / 2020 Spring Volume 18, p. 31.

[40] Branger, F. / Quirion, P. (2014), Would border carbon adjustments prevent carbon leakage and heavy industry competitiveness losses? Insights from a meta-analysis of recent economic studies, Ecological Economics, pp. 99, 29-39.

3.1.3 Incentivising Stricter Climate Policies of Third Countries

With a view to reducing the overall global GHG emissions, the Commission also considers a CBAM as a tool to incentivise third countries to adopt climate policies which are "similarly ambitious" to those of the EU.[41] If this would be successful, the price difference between European products and comparable goods from third countries due to different carbon costs would disappear and a CBAM would finally become obsolete.

3.1.4 Reducing the EU's Carbon Footprint

Also with a view to reducing the overall global GHG emissions, the European Parliament has highlighted that a CBAM should also reduce the "carbon footprint" of the EU.[42] According to this concept, not only domestic GHG directly emitted within the EU, but also the GHG emission associated with the production and transportation of imported goods ("embedded" or "imported" GHG emissions) indirectly contribute to the overall GHG emissions caused by the EU. Given rising imports from third countries with less stringent climate policies, it is argued that such "imported GHG emissions" would undermine the efforts of the EU to reduce its overall contribution to climate change.

3.1.5 Raising Own Resources for the EU Budget

The EU plans to use revenues raised by a CBAM as a new "own resource" of the EU general budget.[43]

3.2 CBAM Options in General

Since the objectives and hence the suitable instruments for adjusting carbon costs are different for imports and for exports, the various CBAM instrument options which at are at least in general under consideration will be presented separately in the following.

3.2.1 Import CBAM Options

In its Inception Impact Assessment of March 2020[44], the Commission considers in principle four types of instruments as options for the introduction of a CBAM – all of them in the form of an "import CBAM instrument" – which aim at creating a level playing field for "import competition": (1) a tax or customs duty ("tariff") on imports, (2) the extension of the EU-ETS to imports, (3) a "notional EU-ETS" mirroring the price of EU-ETS allowances and (4) a carbon tax at consumption level (carbon consumption tax, CCT).[45] The first three options apply at the border, the last is charged to EU consumers.

3.2.1.1 Customs Duty

A CBAM for imports could be designed in the form of a "border tax or customs duty on selective carbon intensive products" at the EU border (option **IM1**).[46] It could be a fixed amount or a price mark-up compensating the differences in carbon pricing between the EU and its trade partners.[47]

---

41 EU Commission (2020), Inception Impact Assessment Ares(2020)1350037 of 4 March 2020, p. 3.
42 EU Parliament (2021), Resolution (2020/2043(INI)) of 10 March 2021, A WTO-compatible EU carbon border adjustment mechanism, recitals E., H. and M. as well as pt. 6.
43 European Council (2020), Conclusions of the Meeting on 17–21 July 2020, pt. 147; Council Decision (EU, Euratom) 2020/2053 of 14 December 2020 on the system of own resources of the European Union, recital 8; CBAM-Draft-Regulation (Leak of 3 June 2021), Art. 2.
44 EU Commission (2020), Inception Impact Assessment Ares(2020)1350037 of 4 March 2020.
45 Id., p. 2; EU Commission, Public Consultation on the CBAM – Summary Report of 5 January 2021, p. 4.
46 EU Commission, Public Consultation on the CBAM – Summary Report of 5 January 2021, p. 4.
47 EU Parliament (2020), Possible carbon adjustment policies: An Overview, Briefing for the INTA Committee, p. 7 et seq.

3.2.1.2 Extension of the EU-ETS

A CBAM through the "extension of the EU-ETS to imports" (option **IM2**) would require importers or foreign producers to purchase emission allowances of the EU-ETS.[48] This means that for sectors covered by the EU-ETS, imports would be subject to the same obligations and the same carbon price as production within the EU. The extension of the EU-ETS to imports would require a change in the emissions cap and in the allocation of allowances.

3.2.1.3 Notional ETS

A CBAM in the form of "allowances for imports mirroring the EU-ETS" ("notional EU-ETS"; option **IM3**) refers to the obligation of importers of products crossing the EU border to purchase special allowances ("CBAM certificates") separate from the pool of allowances limited and reduced by the cap of the EU-ETS.[49] This means that for sectors covered by the EU-ETS, production outside the EU would be subject to a carbon price that "mirrors" the price of EU-ETS allowances, without affecting the EU-ETS pool of allowances. According to the preliminary draft for a CBAM-Regulation leaked on 3 June 2021, the Commission intends to propose this import CBAM option.[50]

3.2.1.4 Carbon Consumption Tax (CCT)

Finally, a CBAM for imports could be introduced in the form of a "carbon consumption tax" (CCT; option **IM4**). This means that the price of carbon intensive goods in the EU – both domestic and imported – would include a tax based on the GHG emissions associated with their production ("carbon content"). A CCT could be designed as an indirect tax like excise duties or a value added tax (VAT).[51] The tax rate could be mirroring the EU-ETS allowance price, similar to a notional ETS. A CCT could be implemented either as an alternative (option **IM4a**) or as a supplement to the EU-ETS (option **IM4b**).

(1) CCT as Alternative to the EU-ETS

Although the Commission does not specify the way a CCT could be designed, its plan to phase-out free EU-ETS allowances strongly suggests that in this case those sectors in which a CCT would be introduced could not at simultaneously be also covered by the EU-ETS. Otherwise, companies would face a double carbon price by a CCT and by an EU-ETS without free allowances. The resulting competitive disadvantage for EU producers compared to importers to the EU would be contrary to the main objective of a CBAM to provide a level playing field.

(2) CCT With Free EU-ETS Allowances for Companies Competing with Imports

Another option would be to introduce a CCT in parallel to the EU-ETS but keeping free EU-ETS allowances for EU producers subject to the CCT. In this case, the EU-ETS would still limit the territorial GHG emissions by its cap but would not cause significant carbon costs for EU producers. The pass-through of the EU-ETS allowance and hence the price signal to consumers would be established by the CCT.

3.2.2 Export CBAM Options

At the moment, EU legislation foresees the creation of a level-playing field for EU exporters on world markets ("export competition") by reducing their carbon costs through the free allocation of EU-ETS

48 EU Commission (2021), Public Consultation on the CBAM – Summary Report of 5 January 2021, p. 4.
49 Id.
50 EU Commission, CBAM-Draft-Regulation (Leak of 3 June 2021), especially Art. 10, Art. 22–26 and Art. 38–43.
51 Id.

allowances and the electricity price compensation. The Commission, however, seems to pursue a phase-out of these existing measures against carbon leakage – without expressly considering its impact on EU exporters, except for the statement that the effects of the CBAM on "third country markets have to be analysed".[52] Therefore, the question arises whether export CBAM instruments are necessary to ensure a level playing field for EU exporters in export competition in order to prevent carbon leakage and, if yes, which options are available.

Instead of the current measure for the prevention of carbon leakage within the EU-ERTS in the form of the free allocation of allowances, possible export CBAMs could be in the form of a reimbursement of EU-ETS allowance costs for EU exporters in form of "partial offsets" (**EX1**), "annual refunds" for exports (**EX2**), or "export rebates" linked to the most efficient installation (benchmarks) (**EX3**). Alternatively, the EU could keep the current system of free allocation of EU-ETS allowances at least for exporters (**EX4**).[53]

3.2.2.1 Reimbursement or Annual Refunds of Allowance Costs

An option for an export CBAM instrument could be to auction all EU-ETS allowances and reimburse the allowance cost to EU exporters subsequently (option **EX1**). Alternatively, as proposed by the French Government[54], partial offsets to the allowance costs could be paid as annual refunds to exporters proportional to their export share in total production (option **EX2**).

3.2.2.2 Export Rebates Linked with the Environmental Performance

The EU Parliament considers to grant export rebates only for the "most efficient installations" (option **EX3**).[55]

3.2.2.3 Free Allocation of EU-ETS Allowances

EU could keep the current system of free allocation of EU-ETS allowances at least for exporters (option **EX4**).[56] While keeping free EU-ETS allowances for exporters alone as an export CBAM instrument could pose delimitation difficulties, fully free allocation of allowances up to a benchmark to the entire industries at risk of carbon leakage – being exporters or not – could be comparatively easily implemented, especially in combination with a CCT.

3.3 EU Commission: Plans and Considerations

According to its preliminary CBAM-Draft-Regulation leaked on 3 June 2021,[57] the Commission plans to propose in July 2021 "with the purpose of preventing the risk of carbon leakage" the establishment of a CBAM for "regulating greenhouse gas emissions embedded in certain goods".[58] The planned CBAM

---

52 EU Commission (2021), Public Consultation on the CBAM – Summary Report of 5 January 2021, p. 1; EU Commission (2020), Inception Impact Assessment ARES(2020) 1350037 of 4 March 2020, p. 2.

53 Wissenschaftlicher Beirat (2021), Gutachten, p. 15.

54 See below subsection 4.1.1.1: Autorités françaises, Feedback to EU Green Deal (carbon border adjustment mechanism), No. F525248 submitted on 20 April 2020; see also L'Heudé, W. et al. (2021), A Carbon Border Adjustment Mechanism for the European Union, Trésor-Economics 280, p. 7 et seq.

55 EU Parliament (2021), Resolution (2020/2043(INI)) of 10 March 2021, A WTO-compatible EU carbon border adjustment mechanism, pt. 29.

56 Wissenschaftlicher Beirat (2021), Gutachten, p. 15.

57 Available at Euractiv of 3 June 2021, LEAK: EU's carbon border tariff to target steel, cement, power.

58 EU Commission (2021), CBAM-Draft-Regulation (Leak of 3 June 2021), Art. 1(1). "Embedded emissions" means "direct emissions and indirect emissions released during the production of the relevant good and its upstream products"; Id., Art. 3(n).

shall, at least initially, only apply to goods of specific sectors – namely cement, electricity, fertilisers, iron and steel, aluminium[59] – when imported from third countries[60] to the EU.

3.3.1 Import CBAM: "Notional ETS"

In essence, the Commission's CBAM-Draft-Regulation – similar to the proposal of the French Government[61] – foresees the establishment of an import CBAM instrument in the form of a "notional ETS" mirroring the carbon price of EU-ETS allowances which shall be introduced in two phases:

3.3.1.1 2023–2025: Simplified CBAM System

In the "initial transitional period" (2023–2025),[62] a "simplified CBAM system" shall be applied with the aim of "reducing the risk of disruptive impacts on trade flows" and "alleviating the initial administrative burden" for importers ("declarants"[63]) of goods to the EU while also ensuring the prevention of the risk of carbon leakage.[64]

In order to implement a simplified "notional ETS" as an import CBAM instrument, the customs authorities of the EU Member States shall ensure that importers of goods will pay a "CBAM price" before they are released on the EU internal market.[65] The Commission shall calculate the CBAM price expressed in Euro per megawatt hour of electricity and in Euro per metric tonne of each other good, using specific "default values" for each good.[66] The CBAM price shall be calculated as the average of the closing prices of all auctions of EU-ETS allowances conducted during each calendar week and shall be applied to sales concluded during the following week.[67] After having paid the CBAM price, an importer may apply to the Commission for a reimbursement of the CBAM price paid corresponding to a calculation of "actual" embedded emissions in the imported goods.[68] Furthermore, the importer may also apply to the Commission for a compensation corresponding to the carbon price paid in the country of origin for the embedded emissions in imported goods.[69]

3.3.1.2 After 2025: CBAM Certificates

After 2025, the Commissions plans to link the carbon price on imports to new "CBAM certificates" in electronic format administered by a new "CBAM authority"[70], each of which "corresponding to one tonne of CO_2e emissions" embedded in imported goods.[71] These CBAM certificates are separate from

---

59 Id., Art. 2(1) in conjunction with Annex I and -ETS Directive 2003/87/EC, Art. 10b.

60 The CBAM shall not apply to goods imported from Iceland, Liechtenstein, Norway and Switzerland as well as from specific territories such as Helgoland; see CBAM-Draft-Regulation (Leak of 3 June 2021), Art. 2(1) in conjunction with Annex II.

61 See below subsection 4.1.1.1: Autorités françaises, Feedback to EU Green Deal (carbon border adjustment mechanism), No. F525248 submitted on 20 April 2020; see also L'Heudé, W. et al. (2021), A Carbon Border Adjustment Mechanism for the European Union, Trésor-Economics 280, p. 7 et seq.

62 CBAM-Draft-Regulation (Leak of 3 June 2021), Art. 38–43.

63 Id., Art. 3(h).

64 Id., Art. 38(1).

65 Id., Art. 39(1).

66 Id., Art. 40(1) in conjunction with Art. 41 and Annex III. "Default value" means "a value representing embedded emissions in a good that is not based on the actual emissions resulting from the production of that good"; Id., Art. 3(q).

67 Id., Art. 40(2).

68 Id., Art. 42(1).

69 Id., Art. 43(1).

70 CBAM-Draft-Regulation (Leak of 3 June 2021), Art. 12–21 and Art. 22–26.

71 Id., Art. 3(p). One "tonne of CO_2e" means "one metric tonne of carbon dioxide (CO_2) or an amount of any other greenhouse gas with an equivalent global warming potential."; Id., Art. 3(v) in conjunction with ETS Directive 2003/87/EC, Art. 3(j).

and not exchangeable with EU-ETS allowances, and are consequently not limited and reduced by the cap set by the EU-ETS.[72]

The importation of the relevant goods is only allowed if made by a "declarant" that is authorised by the CBAM Authority ("authorised declarants"[73]).[74] Accordingly, authorised declarants have to observe a complex "import authorisation procedure" for their imported goods which involves, *inter alia*, the application for authorisation to import goods, a CBAM declaration the calculation of embedded emissions and CBAM certificates to be surrendered, and the verification of the embedded emissions.[75]

The CBAM Authority sells CBAM certificates to authorised declarants for their imported goods.[76] The price of a CBAM certificate is calculated by the CBAM Authority – similarly to the "simplified CBAM system" (2023–2025) – as the average of the closing prices of all auctions of EU-ETS allowances during each calendar week and shall be applied to sales concluded during the following calendar week.[77]

By 31 May each year, importers must submit a "CBAM declaration" to the CBAM authority with information on the emissions embedded in their imported goods during the previous year and the number of CBAM certificates corresponding to these embedded emissions.[78] By the same date, importers shall surrender the number of CBAM certificates to the CBAM authority that corresponds to the embedded emissions of their imported goods declared and verified for the previous years.[79] Similarly to the "simplified CBAM system" (2023–2025), importers may claim a reduction in the number of CBAM certificates to be surrendered corresponding to the carbon price paid in the country of origin for the declared emissions.[80] Furthermore, it is essential to note that the CBAM certificates to be surrendered shall be reduced in number to reflect the extent to which allowances within the EU-ETS are allocated free of charge to EU producers in installations producing the same kind of goods within the EU.[81]

3.3.2 No Export CBAM and Gradual Phase-out of Free Allocation

According to its preliminary CBAM-Draft-Regulation leaked on 3 June 2021, the planned import CBAM instrument in the form of a notional ETS is expressly intended to be an "alternative to the existing measures for the prevention of carbon leakage[82], i.e. the free allocation of EU-ETS allowances and the electricity price compensation which aim at creating a level-playing field for EU companies in the EU market ("import competition") and for EU exporters on world markets ("export competition") by reducing their carbon costs. In this respect, it is important to note that the Commission's CBAM-Draft-Regulation, while aiming for the phase-out of existing carbon leakage protection, does not foresee any other export CBAM instrument such as the reimbursement or annual refunds of EU-ETS allowance costs or export rebates potentially linked to environmental performance or the free allocation of EU-ETS allowances only for exports.

---

72 See above subsection 2.2.
73 CBAM-Draft-Regulation (Leak of 3 June 2021), Art. 3(i).
74 Id., Art. 4(1) and Art. 17.
75 Id., Art. 4–10.
76 Id., Art. 22.
77 Id., Art. 23(1).
78 Id., Art. 6–8.
79 Id., Art. 10(1) and Art. 24.
80 Id., Art. 9(1) and Art. 10(1).
81 Id., Art. 37(1). It is unclear whether the Commission considers a similar provision for the "initial transitional period" (2023–2025).
82 Id., Art. 1(3).

It remains to be seen how the Commission intends to deal with the future of the free allocation of EU-ETS allowances and the electricity price compensation within its proposal for amending the EU-ETS-Directive, also to be published in July 2021. Within the Commission, different options for the timeline regarding the gradual phasing-out of free allocation are discussed:

In March 2021, Mette Koefoed Quinn, the Commission's head of unit of ETS Implementation and IT at DG Climate Action, said[83] that the "current system foresees the sufficient allocation of free allowances until 2029–2030: giving adequate carbon leakage protection. However, we are now looking at whether to introduce CBAM … the Commission says it's either CBAM or free allocation, you can't have both because that's a risk of double compensation ... but a transition period might be needed and that's one of the alternatives we're looking at." In Mette Koefoed Quinn's view, free allowances reduce the incentive for a swift decarbonization: "The pricing is not coming through as it should into the products and this is a problem." With respect to the CBAM objective of protection of EU companies, Vincente Hurtado Roa, deputy director at DG Taxation and Customs Union, stated in April 2021: "Competitiveness is not per se an objective, it is not an objective at all. It's not a trade measure at all – I have to say that. It's purely an environmental measure."[84]

The Commission wants to make a final decision on the length of the transition period during which the CBAM would be introduced and the free allocation of allowances would be gradually phased-out only within the college of commissioners shortly before presenting its final proposals on 14 July 2021.[85] According to media reports which refer to new leaks, different timelines are discussed within the Commission for the gradual phasing-out of free allocation:

- According to F.A.Z. of 6 July 2021,[86] a likely solution could be to extend the phasing-out of free allocation so that that "[i]industry can count on free allowances until at least 2035." Accordingly, the CBAM would be introduced gradually from 2025 over a period of ten years, initially reducing free allowances to 50% by 2030 and to zero by 2035 "at the earliest". F.A.Z also reports that a counter-proposal by Commissioner Paolo Gentiloni envisages a transition period from 2023 to 2030. However, this proposal is not given much chance of success within the Commission since the free allocation of allowances is fixed until 2025.

- According to UK Today News of 7 July 2021,[87] "the leaked text weighed up different timelines and concluded that one of the best options would be a seven-year tail where allowances were cut 50 per cent in 2023, eventually reaching zero only in 2030."

[83] EUROFER Web-Conference 17 March 2021, documented in S&P Global of 17 March 2021.
[84] EURACTIV of 29 April 2021, Carbon border levy should start with steel, cement and fertilisers, says Poland.
[85] F.A.Z of 6 July 2021, Kostenlose CO_2-Rechte für Industrie bis 2035; UK Today News of 7 July 2021, Europe's carbon border tax is more evolution than revolution.
[86] F.A.Z of 6 July 2021, Kostenlose CO_2-Rechte für Industrie bis 2035.
[87] UK Today News of 7 July 2021, Europe's carbon border tax is more evolution than revolution.

4 Discussions in the Run-up to the Commission's CBAM Proposal

In the following, a brief overview of current discussions in the run-up to the Commission's CBAM proposal to be published in July 2021 will provided. Using the example of France and Germany, the different approaches of the French and German governments towards a CBAM and positions of think tanks and stakeholders will be outlined. Furthermore, the European Parliament as well as several think tanks and European stakeholder associations have already positioned themselves

4.1 EU Member States: French and German Perspectives

Traditionally, France and Germany have shown different approaches towards a CBAM. While the French Government was first to propose a CBAM as early as 2006 and has been a strong proponent ever since,[88] the German Government has been distinctly hesitant in this respect. In 2019, in a joint statement of the French Conseil d'analyse économique (CAE, French Council of Economic Analysis) and the German Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung (Council of Economic Experts) – both independent advisory bodies of their respective governments – called for a detailed analysis of the various options for a CBAM, emphasising that it shall not be used as a protectionist measure.[89] In May 2020, both governments merely declared their general will to explore jointly "the ways to implement a WTO-compliant EU-border adjustment tax".[90]

4.1.1 French Perspectives

4.1.1.1 French Government

In 2017, President Emmanuel Macron advocated a CBAM as a tool to "ensure equity" between EU producers and their competitors, stressing that the EU must encourage investment in the ecological transition by "giving a fair price to carbon".[91] Subsequently, France promoted the implementation of a CBAM during negotiations on the EU's long-term climate strategy.[92]

French authorities took part in the public consultation conducted by the Commission on a CBAM.[93] According to the French Government, it is "essential" to introduce a WTO-compliant CBAM in order to fight carbon leakage and ensure that the EU reaches carbon neutrality by 2050 without increasing its carbon footprint. A CBAM would provide a "complete carbon price-signal" by also targeting GHG emissions of imported products. Several criteria of technical, legal, political, and economic nature should be met: a uniform carbon price regardless of the production place; compliance with WTO rules – by being non-discriminatory and exclusively pursuing environmental objectives – and with other international commitments; and consideration of the economic effects of phasing-out free allowances. The

---

88 Le Monde of 14 November 2006, M. de Villepin propose une taxe sur le CO_2 des produits importés; Reuters of 21 January 2007, France's Chirac says wants EU carbon tax post-2012; Elysée (2017), "Sorbonne Speech" of President Emanuel Macron of 26 September 2017, New Initiative for Europe, p. 6; Euractive of 14 September 2020, EU carbon border tax: How a French idea ended up in the limelight.

89 CAE/GCEE (2019), A uniform carbon price for Europe, p. 3.

90 Government of the French Republic / German Federal Government (2020), Common Statement of 18 May 2020 on the European Green Deal and a European Recovery Plan, p. 3.

91 Elysée (2017), "Sorbonne Speech" of President Emanuel Macron of 26 September 2017, New Initiative for Europe, p. 6.

92 Sénat (2019), Les enjeux de la filière sidérurgique dans la France du XXIe siècle, RI No 649, pp. 134 and 137.

93 The description of the official French position follows: Autorités françaises, Feedback to EU Green Deal (carbon border adjustment mechanism), No. F525248 submitted on 20 April 2020; see also L'Heudé, W. et al. (2021), A Carbon Border Adjustment Mechanism for the European Union, Trésor-Economics 280, p. 7 et seq.

French Government proposes to first focus on steel and cement sectors. Other sectors – such as refining, aluminium, some basic chemicals products and electricity – could be included at a later stage.

The preferred option of the French Government for a CBAM is an import CBAM instrument in the form of an obligation for importers to buy specific carbon allowances ("EU importers allowances") which price mirrors the allowance price of the existing EU-ETS ("notional EU-ETS"). Those allowances would not be ex- or interchangeable with the allowances of the EU-ETS, but they should have the same price. Importers would have to surrender EU importers allowances for their products passing through customs. To tackle the technical issue of introducing a CBAM in the short-term, the French Government proposes a product-based default value for the carbon intensity of imports to be set, for instance, at the EU average of the carbon-intensity of equivalent products. Importers could prove a lower carbon intensity of their products. In the long-term, other options could be considered. Furthermore, the EU should cooperate closely with its trade partners and take into account both the climate policy and the level of development of third countries.

Finally, the French Government pushes for a short-term phasing-out of free allowances but envisages some measures to compensate EU exporters – since the CBAM is considered as a tool to end the free allocation of allowances and thus enabling companies to fully internalise the price of carbon. After a transition period until 2030 with a gradually decreasing amount of free allowances between 2023 and 2025, the competitiveness of EU exporters shall be preserved through WTO-compliant export CBAM instrument that would still provide incentives for decarbonisation. The choice of the best measure should be based on detailed studies, but France envisages "partial offsets" taking the form of an "annual refund" that would be proportional to the "share of exports in domestic production" – without resulting in a selling price lower than its cost outside the EU-ETS.

4.1.1.2 French Think-Tanks

The Haut Conseil pour le Climat (HCC, High Counsel for Climate), an independent advisory body to the French Government, favours the adaption of Free Trade Agreements over the introduction of a CBAM for reducing imported emissions at EU level.[94] Accordingly, a CBAM could have only limited impact on reaching mitigation targets and on global GHG emissions, as it would require more reductions of GHG emissions from countries with higher abatement costs. In addition, a CBAM would not address another carbon leakage source: "indirect leakage". Furthermore, there is a risk of regressive effects affecting both developing countries as well as poorer households[95] within the EU.

According to the CAE, the first-best method to reduce GHG emissions would be effective carbon pricing. Nevertheless, "environmental protectionism" in the form of a CBAM could be temporarily used against countries inclined to free-riding.[96] However, the CAE favours international cooperation with other countries committed to reducing their GHG emissions ("climate club").[97] A CBAM is deemed to be "too complex and carrying real risks of trade retaliation".[98]

---

94 Haut Conseil pour le Climat (2020), Maîtriser l'empreinte carbone de la France, p. 49.

95 See also Convention Citoyenne pour le Climat (2020), Rapport final, p. 134, Proposition PT9.1.

96 CAE (2017), Trade and Climate: Towards Reconciliation, Les notes du CAE n°37, p. 2.

97 See Nordhaus, W. (2015), Climate Clubs: Overcoming Free-riding in International Climate Policy. Accordingly, a "Climate club" is a group of countries committed to a binding and ambitious emissions target and imposing a duty on all products from third countries.

98 CAE (2017), Trade and Climate: Towards Reconciliation, Les notes du CAE n°37, pp. 9 and 12.

4.1.1.3 French Stakeholders

The Association française des entreprises privées (Afep, French Association of Large Companies) considers a CBAM as being resilient to retaliatory measures by EU trading partners, as well as the most effective standalone measure to tackle EU carbon leakage.[99] The Mouvement des entreprises de France (MEDEF, Movement of French Businesses) advocates a CBAM linked to the EU-ETS – maintaining free allowances – that applies on a voluntary basis to relevant sectors and also takes into account exports to third countries.[100] Entreprises pour l'Environnement (EpE, Businesses for the Environment)[101] focuses on the necessity to reform the EU-ETS by switching to a carbon footprint based approach – covering diffuse and imported emissions. The French International Chamber of Commerce (ICC France) highlights the risk for some sectors losing their free allowances without benefiting from the advantages of the CBAM and insists on the necessity to combine the various available tools, as global carbon pricing and "carbon clubs", and to set-up a WTO waiver establishing the rules for CBAM.[102]

4.1.2 German Perspectives

4.1.2.1 German Government

Although Chancellor Angela Merkel stated in June 2020 that "it is a joint position" of the French and the German Governments is "that we need such a tax",[103] the German Government has not yet endorsed an official position on a CBAM. Internal deliberations, however, are characterised by scepticism, which is also reflected in a joint statement with other sceptical Member States which stresses the need for "an open-ended examination of all options", expressly including "possible alternatives" to a CBAM.[104] Economics Minister Peter Altmaier insists that a CBAM should "in contrast to the Commission's plans continue to be supplemented by existing measures against the relocation of industry due to CO_2 reduction costs".[105] An assessment "could only be made after the results of the Commission's comprehensive impact assessment have been presented". It is not foreseeable whether a CBAM "could replace the proven carbon leakage protection system in the long term".[106] Within the German Ministry for Economics, a carbon consumption tax (CCT) is discussed as a valid option.[107]

This scepticism is apparent in a preliminary draft of the German position on the "Fit for 55 package" of 27 May 2021 which was leaked on 7 June 2021.[108] Accordingly, the German Government highlights that "all opportunities and risks potentially associated with the carbon border adjustment mechanism or alternative approaches should be carefully identified and weighed against one another". With regard to import CBAM instruments, the German Government urges the Commission to present "thorough and comprehensive impact assessments for all options discussed. This means for both the classic

---

99 AFEP (2021), Study on Trade & Climate change, pp. 50–54.
100 MEDEF (2019), Mécanisme d'ajustement carbone aux frontières de l'Europe.
101 EpE (2020), Feedback to EU Green Deal (CBAM), No. F510103 submitted on 31 March 2020.
102 ICC France (2020), Feedback to EU Green Deal (CBAM), No F509887 submitted on 30 March 2020.
103 FAZ of 30 June 2020, Merkel und Macron: Die verflixte Sache mit der CO_2-Grenzsteuer; Clean Energy Wire of 30 June 2020, Merkel and Macron urge introduction of EU carbon border tax.
104 Council (2020), Conclusions of the Meeting on 25 June 2020, Annex: Joint Statement by Germany, Belgium, Hungary and the Czech Republic.
105 Montelnews of 16 July 2020, Altmaier unterstützt Anhebung von EU-Klimaziel auf 55% 2030.
106 Deutscher Bundestag, Antwort der Bundesregierung vom 3. November 2020 auf die Kleine Anfrage der Fraktion Bündnis 90/Grüne.
107 Wirtschaftswoche of 18 March 2021, Bundesregierung wirbt in Brüssel für CO_2-Verbrauchsabgabe.
108 German-CBAM-Position (Leak of 7 June 2021)], p. 2 et seq.; available at Euractiv of 7 June 2021, LEAK: Germany backs carbon pricing extension in EU climate policy overhaul.

carbon border adjustment and for an excise duty", i.e. a carbon consumption tax (CCT). With respect to export CBAM instruments, the German Government expressly claims that "existing instruments to protect against carbon leakage (free allocation and electricity cost compensation) have to be prolonged to an appropriate extent, taking into account international competitiveness".

4.1.2.2 German Think-Tanks

Already in 2016, the Deutsche Institut für Wirtschaftsforschung (German Institute of Economics Research) published a comprehensive proposal for a CCT in addition to the EU-ETS.[109] Accordingly, carbon-intensive basic materials produced in the EU should become subject to a carbon consumption tax at the time of their production. The amount of the tax obligation would result from the weight of the basic material multiplied by the emissions per tonne according to the corresponding product benchmark of the EU-ETS and by the average allowance price of the previous year. The producer would not have to pay the tax. Instead, it could be passed – if so wanted – on along the value chain in a so-called tax suspension procedure, e.g. from the steel producer to a car manufacturer. Then the tax would only be due when the product is sold to private households or a company that is not exempt from the tax because it will only serve the EU market.

Importers of emission-intensive raw materials and products with significant proportions thereof would also be subject to the tax, like their EU competitors. To avoid distortion of competition for EU exporters on the world market, the tax obligation would be waived for exports. Hence, EU producers along the value chain who are exposed to international competition would not incur any additional costs through the tax.

To protect their competitiveness, EU manufacturers, e.g. of steel, would continue to receive EU-ETS all needed allowances for free up to the benchmarks. If their emissions per product unit are higher than the benchmark value, they would have to buy additional allowances. If they reduce their emissions using new technologies, they could sell allowances. In addition, a free allocation of emission allowances up to the full benchmark value is proposed, since there are no environmental or fiscal policy interests to reduce this allocation. The revenue generated by the tax compensates lost revenues due to free allowances.

Recently, the independent Wissenschaftlicher Beirat beim BMWi (Scientific Council to the German Ministry for Economics) harshly criticised any unilateral introduction of a CBAM by the EU because of its minimal contribution to global emissions reduction and adverse effects on global climate policy. Instead, it urged the EU to use the narrow window of opportunity of US President Biden's first two years in office to forge a "climate club" with a minimum carbon price, no adjustments between club members and a CBAM against third countries.[110] The Institute of Economics also pointed to the need of a multilateral approach and highlighted the role of trade policy to forge "trade clubs for climate" that help incentivise global GHG emissions reduction – with the option to start on a sectoral level.[111]

4.1.2.3 German Stakeholders

The Bund der Deutschen Industrie (BDI, German Industry Association)[112] fears considerable disadvantages for exporters and even trade conflicts if a CBAM were introduced. A CBAM should be WTO-

[109] See Neuhoff, K. et al. (2016).
[110] Wissenschaftlicher Beirat beim BMWi (2021), Gutachten.
[111] Kolev, G. (2021), Trade Club for Climate, IW-Policy Paper 8/21.
[112] BDI – Bund der Deutschen Industrie (2021), Grenzausgleichsmaßnahmen sind kein Wundermittel.

compatible and internationally coordinated, otherwise there would be a danger of a "spiral of sanctions". Similarly, the Deutsche Industrie- und Handelskammer (DIHK, German Chamber of Industry and Commerce) sees a risk of retaliatory measures and trade conflicts being detrimental to Germany's export-oriented economy – as it would be if only imports to the EU market were put into focus.[113] Maintaining the competitiveness of the export economy should thus be given high priority when reforming carbon leakage protection mechanisms. Both organizations insist on maintaining and extending free allowances.

4.2 European Parliament

In March 2021, the European Parliament adopted a resolution calling for the adoption of a WTO-compatible import CBAM instrument[114] that should cover GHG emissions of all imports of products and commodities covered by the EU-ETS, including when embedded in intermediate or final products. Already by 2023, such a CBAM should cover the power sector and energy-intensive industrial sectors like cement, steel, aluminium, oil refinery, paper, glass, chemicals and fertilisers, which will "continue to receive substantial free allocations", and still represent 94% of EU industrial emissions[115]. The European Parliament insist that the primary aim of the CBAM is environmental and that environmental criteria should play an essential role in the instrument choice, "ensuring a predictable and sufficiently high carbon price that incentivises decarbonisation investments".[116] With respect to competitiveness, it emphasises that the CBAM should create a level playing field between EU domestic and foreign producers by applying an ETS-equivalent charge on the carbon emissions associated with imported products in those sectors, regardless of their origin, thereby ensuring full protection against carbon leakage for European industry and avoiding the transfers of GHG emission from the EU to third countries. Double protection for EU installations should be avoided, "while assessing the impact on exports and dependent sectors along the value chain".[117] In this respect, the Parliament urges the Commission also to consider the possible introduction of export rebates as an export CBAM instrument, but "only if it can fully demonstrate their positive impact on climate and their compatibility with WTO rules".[118] Nevertheless, in apparent contrast, it stresses that any mechanism must avoid carbon leakage.[119]

According to Pascal Canfin, Chair of the Parliament's environment committee, WTO compatibility requires that the scope of the CBAM must mirror the EU-ETS. This would call into question the free allocation of allowances for European manufacturers "because we cannot have both border protection and free quotas". For him, a possible solution would be to gradually phase-out the amount of free allowances within the EU-ETS at the same time as the import CBAM is being introduced. In this way, the two compensation systems would co-exist for a transition period, but would not cover the same ton of carbon. "The same ton of carbon emitted by a European installation cannot be covered both by the carbon border adjustment mechanism and by free allowances because this would be a double compensation that is not compatible with the WTO."[120]

---

[113] DIHK – Deutscher Industrie- und Handelskammer (2020), Leitlinien zu CO_2-Grenzausgleichsmechanismen.
[114] EU Parliament (2021), Resolution (2020/2043(INI)) of 10 March 2021, A WTO-compatible EU carbon border adjustment mechanism.
[115] Id., No. 12.
[116] Id., No. 14.
[117] Id., No. 28.
[118] Id., No. 29.
[119] Id., No. 30.
[120] EURACTIV of 10 May 2021, EU Parliament votes to retain free CO_2 quotas for industry.

4.3 European Stakeholders

The European Steel Producer Association EUROFER emphasizes that "higher climate ambition for 2030 and 2050 requires strengthened, not weakened, carbon leakage protection.[121] This could only be achieved if the CBAM is implemented as a complementary tool to existing carbon leakage measures. According to EUROFER, a CBAM reinforcing existing carbon leakage measures is not double protection "as such mechanisms are already only partial and digressive". Even with free allocation and compensation, EU producers were bearing carbon costs that are not applied to extra-EU competitors. This divergence would further increase in the future as the EU-ETS is adjusted to higher levels of climate ambition. EUROFER wants the EU-ETS to continue for a transition period of eight years after the CBAM is introduced, during which free allowances would continue to be made to EU steelmakers.[122]

The European Association of Metals EUROMETEAUX is concerned that the future CBAM will not be effective in preventing the non-ferrous metals industry's risk of carbon leakage; it should reflect the complexity of industrial value chains, not be open to easy circumvention, and allow export rebates.[123]

5 WTO Compatibility

The relationship between international trade law and environmental measures in general[124] and the compatibility of a CBAM with WTO requirements in particular are widely discussed.[125] While in principle WTO members have the right to take domestic measures protecting the environment and reducing GHG emission without any prior WTO authorisation, they must also adhere to WTO law. Therefore, a CBAM introduced by the EU would have to meet various WTO requirements especially pursuant to the General Agreement on Tariffs and Trade (GATT)[126] and the Agreement on Subsidies and Countervailing Measures (ASCM)[127]. Neither the GATT, which dates back to the 1940s, nor the ASCM, which was updated in 1994, explicitly address climate change, and no decisions have been rendered by WTO dispute settlement bodies in this respect.[128] As a consequence, many essential questions regarding the legal status of a CBAM under WTO law remain unanswered.[129] Therefore, we will take a closer look at relevant WTO provisions potentially applicable and assess which legal requirements a CBAM would have to meet to be most likely to be regarded as WTO compliant. In many respects, however, the WTO compliance of CBAM options can neither be answered in a general way with a simple "yes" or "no", as this depends to a considerable degree on the specific design of the measure in question.[130]

---

[121] EUROFER (2021), European Parliament carbon border vote proves majority support for stronger carbon leakage protection to match greater climate ambition.

[122] EUROFER, Web-Conference 17 March 2021, documented in S&P Global of 17 March 2021.

[123] EUROMETEAUX, EU Parliament Vote: Metals industry concerned on Carbon Border Adjustment Mechanism's effectiveness, Press Release of 10 March 2021.

[124] WTO, The environment: a specific concern.

[125] WTO/UNEP (2009), Report on Trade and Climate Change, p. 103; Condon, M. / Ignaciuk, A. (2013), Border Carbon Adjustment and International Trade: A Literature Review, OECD Trade and Environment Working Papers No. 2013/06 [hereinafter: OECD 2013/06], p. 17; Pauwelyn, J. / Kleimann, D. (2020), Trade Related Aspects of a Carbon Border Adjustment Mechanism – A Legal Assessment, Briefing for the INTA Committee of the European Parliament [hereinafter: Pauwelyn, J. / Kleimann, D. (2020), CBAM Legal Assessment], p. 6 and footnote 2.

[126] WTO, General Agreement on Tariffs and Trade (GATT).

[127] WTO, Agreement on Subsidies and Countervailing Measures (ASCM).

[128] Pauwelyn, J. / Kleimann, D. (2020), CBAM Legal Assessment, p. 5.

[129] Mehling, A. et al. (2019), Designing Border Carbon Adjustments for Enhanced Climate Action, in: American Journal of International Law [hereinafter: Mehling, A. et al. (2019), Border Carbon Adjustments], pp. 433–481(457).

[130] Volmert, B. (2011), Border Tax Adjustments: Konfliktpotential zwischen Umweltschutz und Welthandelsrecht [hereinafter: Volmert, B. (2011), Border Tax Adjustments], p. 31.

5.1 Relevant WTO Requirements

At the core of WTO law is the commitment of WTO members to encourage international trade by gradually reducing trade barriers. Accordingly, WTO members are obliged to eliminate quantitative restrictions to imports, i.e. prohibitions or restrictions as quotas and import or export licences [Art. XI GATT], and also to cut and bind their tariffs on imports (i.e. customs duties) [Art. II GATT: "Schedules of Concessions"].[131] In this context, however, Art. II:2(a) GATT expressly states that WTO members are not prevented "from imposing at any time on the importation of any product … a charge equivalent to an internal tax … in respect of the like domestic product or in respect of an article from which the imported product has been manufactured or produced in whole or in part" if this internal tax is imposed consistently with the provisions of Art. III:2 GATT. Consequently, "border tax adjustments" (BTAs) on imported products are allowed subject to certain legal conditions.

In general, the WTO defines BTAs as "as any fiscal measures which put into effect, in whole or in part, the destination principle", both in the form of import BTAs "which enable imported products sold to consumers to be charged with some or all of the tax charged in the importing country in respect of similar domestic products" and also as export BTAs "which enable exported products to be relieved of some or all of the tax charged in the exporting country in respect of similar domestic products sold to consumers on the home market."[132] Due to the fact that the distinction between the mere alignment of taxes by an import BTA as opposed to tariff-equivalent charges as well as the distinction between export BTAs and competition-distorting export subsidies can be difficult, BTAs have been accused – e.g. in the 1960s by the USA regarding BTAs of European countries – of being a means of protectionism.[133] Against this background, the following essential WTO principles, which aim to ensure fair conditions of trade, are of special relevance with regard to BTAs in general and the envisaged introduction of a CBAM by the EU in particular:

- According to the non-discrimination principle of "national treatment on internal taxation and regulation" [Art. III GATT], imported goods must be treated equally compared to like domestic products both with regard to fiscal measures ("internal taxes and other internal charges") [Art. III:2 GATT] and regulatory measures ("laws, regulations and requirements") [Art. III:4 GATT] affecting, *inter alia*, the internal sale. In particular, fiscal and regulatory measures should not be applied to imported or domestic products in a protectionist manner "so as to provide protection to domestic production" [Art. III:1 GATT].

- Pursuant to the non-discrimination principle of "general most-favoured-nation treatment" (MFN) [Art. I GATT], each WTO member must treat other WTO members equally if the same conditions prevail, granting to all of them "immediately and unconditionally" the trade conditions applied to the like products originating from or destined to the best-treated partner.[134]

- Export CBAMs could qualify as prohibited or at least as actionable "export subsidies" pursuant to the Agreement on Subsidies and Countervailing Measures (ASCM).

---

[131] WTO, Schedules of concessions; WTO, Tariffs: more bindings and closer to zero.
[132] GATT Working Party (1970), Border Tax Adjustments, Report L/3464, § 4.
[133] Ruddigkeit, D. (2009), Border Tax Adjustments an der Schnittstelle von Welthandelsrecht und Klimaschutz vor dem Hintergrund des Europäischen Emissionszertifikatehandels [hereinafter: Ruddigkeit, D. (2009), Border Tax Adjustments], p. 6 et seq.
[134] WTO, Principles of the trading system.

- Even if the specific design of an import or export CBAM breaches WTO requirements, this may be justified as a general exception [Art. XX GATT] especially with a view of the environmental objective of a CBAM to reduce the risk of carbon leakage. This would be the case if the CBAM is "necessary to protect human, animal or plant life or health" [Art. XX(b) GATT] and/or if it is "relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption" [Art. XX(g) GATT]. Even if one or both requirements are met, a CBAM must also 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" [Chapeau of Art. XX GATT].

5.2 Import CBAM Options

In the following, the requirements of the non-discrimination principles of "national treatment on internal taxation and regulation" [Art. III GATT] and of the "general most-favoured-nation treatment" (MFN) [Art. I GATT] relevant especially for the introduction of an import CBAM will be outlined.

5.2.1 Non-Discrimination: National-Treatment-Principle, Art. III GATT

According to the basic rule of Art. I:1 GATT, fiscal measures ("internal taxes and other internal charges") as well as regulatory measures ("laws, regulations and requirements") affecting "the internal sale, offering for sale, purchase, transportation, distribution or use of products", must not be applied to imported or domestic products in a protectionist way "so as to afford protection to domestic production". Pursuant to the interpretative Note Ad Art. III GATT [Annex I GATT], any fiscal or regulatory measure "which applies to an imported product and to the like domestic product and is collected or enforced in the case of the imported product at the time or point of importation", is nevertheless to be regarded as an "internal" fiscal or regulatory measure, and is therefore subject to the provisions of Art. III GATT.

The essential requirements of the national-treatment-principle relevant for the introduction of a CBAM applied to products imported into the EU are laid down in Art. III:2 GATT. Accordingly, imported products "shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products" [Art. III:2, second sentence GATT]. Furthermore, such internal fiscal measures must not be applied to imported or domestic products in a protectionist manner [Art. III:2, second sentence, and Art. III:1 GATT].

Given these requirements of the national-treatment-principle according to Art. III:2 GATT, in the following the various options for import CBAM instruments under consideration will be assessed using a three-step test: (1) Does a specific option for an import CBAM in principal qualify as an adjustable BTA measure? (2) What are the legal implications for a CBAM of the requirement that imported and domestic products must be regarded a "like" products? (3) What are the legal consequences for a CBAM of the requirement that fiscal burdens charged to imported products must not be "in excess" compared to those applied to the like domestic products? The question whether an internal fiscal measure is applied to imported or domestic products in a protectionist manner cannot be answered theoretically but must be assessed on a case-by-case basis depending on all specific circumstances.

5.2.1.1 Adjustability of CBAM Options?

In the following, the question whether a specific option for an import CBAM under consideration would principally qualify as an adjustable BTA measure will be assessed.

5.2.1.1.1 Customs Duty

One option for an import CBAM considered by the Commission is a "border tax or customs duty on selective carbon intensive products" at the EU border.[135] The terms "border tax or customs duty" imply by definition that they are levied because a product crosses a border and that they are not specifically linked to an internal fiscal measure. In contrast, a BTA is defined by such an interrelationship as it has to be "equivalent" to an internal fiscal measure [Art. II:2(a) GATT]. Furthermore, in contrast to a "border tax or customs duty", an BTA does not necessarily have to take place at the border.[136] Therefore, a "border tax or customs duty" would not qualify as an adjustable CBAM option. Most importantly, it would be in breach of the requirement to cut and bind tariffs on imports pursuant to the GATT Schedule of Concessions [Art. II:1(a) GATT].[137]

5.2.1.1.2 Extension of EU-ETS

An "extension of the EU-ETS to imports" as considered by the Commission[138] would mean that foreign producers or importers of their products would be subject to all the EU-ETS obligations as domestic EU production in same sectors covered by EU-ETS. Apart from the requirement to purchase EU-ETS emission allowances, this would also encompass additional administrative costs typically associated with the participation in an emissions trading system.

Even if the cap of the EU-ETS, which limits and reduces the total number of emissions allowances, would initially be expanded to include imports in the extended EU-ETS, one could argue that the cap itself would actually impose a prohibited "quantitative restriction" on importation [Art. XI:1 GATT][139] which would considerably hinder access of imports to the EU market and in effect constitute a barrier to trade.

Furthermore, the extension of the EU-ETS to imports could be regarded as a regulatory measure which must not be "less favourable than that accorded to" like domestic products manufactured in the EU [Art. III:4 GATT]. However, even if imported and domestic products are treated equally within the EU-ETS in general and especially with regard to the allowance price, additional administrative costs associated with a regulatory measure such as the EU-ETS are not adjustable.[140] Therefore, the extension of the entire EU-ETS to imports would not qualify as an BTA.

5.2.1.1.3 Carbon Consumption Tax

Another option considered by the Commission as an import CBAM is a "carbon consumption tax" (CCT). Accordingly, the price of carbon intensive goods in the EU – both domestic and imported – would include a tax based on the GHG emissions associated with their production ("carbon content"). A CCT could be designed as an indirect tax like excise duties or a value added tax (VAT) and the tax rate could be mirroring the EU-ETS allowance price.

---

[135] EU Commission, Public Consultation on the CBAM – Summary Report of 5 January 2021, p. 4.
[136] WTO (1997), Border Tax Adjustment, WT/CTE/W/47, § 24.
[137] For the distinction between "customs duties" and "BTAs" see Ruddigkeit, D. (2009), Border Tax Adjustments, p. 7; Volmert, B. (2011), Border Tax Adjustments, p. 40.
[138] EU Commission (2021), Public Consultation on the CBAM – Summary Report of 5 January 2021, p. 4.
[139] For the distinction between "quantitative restrictions" and "BTAs" in general see Volmert, B. (2011), Border Tax Adjustments, p. 41 et seq.
[140] Ruddigkeit, D. (2009), Border Tax Adjustments, p. 18 et seq. and footnote 79; Volmert, B. (2011), Border Tax Adjustments, p. 71.

The adjustability of an CCT is subject to the requirement that imported products must "not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products" [Art. III:2, first sentence GATT]. A CCT would clearly qualify as a "internal tax" pursuant to the widely accepted classification of the OECD.[141] Accordingly, the term "tax" is "is confined to compulsory, unrequited payments to general government. Taxes are unrequited in the sense that benefits provided by government to taxpayers are not normally in proportion to their payments." However, since only the indirect taxes are adjustable, they must be differentiated from direct taxes.[142]

In general, "indirect taxes" – e.g., excise duties, value added taxes – are imposed on products, while "direct taxes" – e.g. taxes on income and on the ownership of real property – are considered to be imposed on the producer.[143] The preference granted to indirect taxes[144] relies on the assumption that indirect taxes are eventually reflected in the final price of the product and, thus, are paid by the consumer. In contrast, direct taxes are finally borne by the manufacturer of the product and are not reflected in the final price of the product. WTO provisions on BTAs follow the destination principle for indirect taxes, and the origin principle for direct taxes. Consequently, an adjustment is not possible for direct taxes, whether levied on imported or on exported products.

While a CTT could be designed as an indirect tax, the crucial question arises whether indirect taxes on inputs to the final product which were exhausted in the production process ("taxes occultes") are adjustable.[145] In particular, it needs to be clarified whether a CCT based on use of fossil fuels and the associated GHG emissions in the production process, which are not physically present in the final product, would be WTO compatible. "Taxes occultes" are defined as "consumption taxes on … auxiliary materials … used in the … production of other taxable goods", including consumption taxes on energy.[146] The question of the adjustability of such "taxes occultes" has been very controversially discussed within the WTO.[147]

An argument for the adjustability of "taxes occultes" in general and energy consumption taxes such as the CCT in particular is that BTAs are defined as any fiscal measures "applied directly or *indirectly* to like domestic products" [Art. III:2, first sentence GATT; emphasis added].[148] In addition, a BTA can be introduced as a "charge equivalent to an internal tax … in respect of *an article from which the imported product has been manufactured or produced* in whole or in part" [Art. II:2(a) GATT; emphasis added].[149]

Furthermore, a comparison with the WTO provisions applicable to export BTAs also strengthens the case for the adjustability of a CCT applied to imports.[150] Accordingly, the "exemption of an exported product from duties or taxes *borne by* the like product when destined for domestic consumption, or

[141] OECD (1996), Note on the Definition of Taxes by the Chairman, 19 April 1996, § I.1.
[142] GATT Working Party (1970), Border Tax Adjustments, Report L/3464, § 14; WTO (1997), Border Tax Adjustment, WT/CTE/W/47, §§ 31–37.
[143] WTO (1997), Border Tax Adjustment, WT/CTE/W/47, § 31.
[144] Id., § 36.
[145] Id., § 66.
[146] GATT Working Party (1970), Border Tax Adjustments, Report L/3464, § 15; WTO (1997), Border Tax Adjustment, WT/CTE/W/47, § 67.
[147] GATT Working Party (1970), Border Tax Adjustments, Report L/3464, § 15; WTO (1997), Border Tax Adjustment, WT/CTE/W/47, §§ 38, 75–76.
[148] WTO (1997), Border Tax Adjustment, WT/CTE/W/47, § 68.
[149] Id., § 69.
[150] Id., § 71.

the remission of such duties or taxes in accounts not in excess of those which have accrued, shall not be deemed to be" a prohibited export subsidy [Annex I GATT, Note Ad Art. XVI GATT; emphasis added]. Furthermore, "prior stage cumulative indirect taxes may be exempted …, if levied on *inputs that are consumed in the production*" [Annex I(g) and (i) ASCM; emphasis added].[151] In addition, "*inputs consumed in the production process*" are regarded as "inputs physically incorporated, *energy, fuels and oil used in the production process* and catalysts which are *consumed in the course of their use to obtain the exported product*" [Annex II ASCM, footnote 61; emphasis added].[152] While early on the contracting parties of the GATT[153] observed that there are "… differences in the terms used … in particular with respect to the provisions regarding importation and exportation" – e.g. the terms "borne by" and "levied on" – there was consensus that "these differences in wording" do not result in "any differences in interpretation of the provisions". Consequently, it "was agreed that GATT provisions on tax adjustment applied the principle of destination identically to imports and exports."

Apart from the internal consistency of WTO provisions, ultimately the *rationale* of a BTA, which very aim is to put the destination principle for taxation into effect, is decisive.[154] As demonstrated, indirect taxes are linked to specific products and passed on to consumers via the product price ("pass through") in the country of destination. Whether or not an input used in the production process is still physically present in the final product has no influence on the price that is passed through to consumers and, therefore, should be irrelevant. Consequently, an indirect tax in the form of a "taxe occulte" – such as a CCT levied on the consumption of fossil fuels and the associated GHG emissions – can be deemd adjustable even if the taxed inputs, such as energy, were exhausted in the production process and are therefore not physically present in the final product itself.[155]

5.2.1.1.4 Notional ETS

A "notional ETS", which the Commission intends to propose according to its preliminary draft for a CBAM-Regulation leaked on 3 June 2021[156], would oblige importers of products crossing the EU border to purchase special allowances ("CBAM certificates") separate from the pool of allowances limited and reduced by the cap of the EU-ETS.[157] The price of the CBAM certificates would mirror the price of EU-ETS allowances. Such a "notional ETS" could only be regarded as adjustable, if it qualifies as a fiscal measure ("internal tax or other internal charge") [Art. III:2, first sentence GATT] as opposed to a non-adjustable regulatory measure ("laws, regulations and requirements") [Art. III:4 GATT].[158]

In this respect, the term "notional ETS" is actually misleading, since such a measure would lack the defining features of an emissions trading system which is defined by its "cap and trade" approach: It would not limit the absolute amount of CBAM certificates ("cap") and these would not be tradeable ("trade"). Consequently, the administrative costs typically associated with an ETS would not arise.[159] Therefore, one could argue that a "notional ETS" is basically limited to the requirement to purchase

[151] Id., § 72.
[152] Id.
[153] GATT Working Party (1970), Border Tax Adjustments, Report L/3464, § 10.
[154] For the following see Ruddigkeit, D. (2009), Border Tax Adjustments, p. 13 et seq. with further references.
[155] Id., p. 14; Volmert, B. (2011), Border Tax Adjustments, p. 65 et seq.
[156] EU Commission (2021), CBAM-Draft-Regulation (Leak of 3 June 2021), especially Art. 10, Art. 22–26 and Art. 38–43.
[157] Id.
[158] Mehling, A. et al. (2019), Border Carbon Adjustments, p. 459; Ruddigkeit, D. (2009), Border Tax Adjustments, p. 18 et seq.; Volmert, B. (2011), Border Tax Adjustments, p. 67.
[159] Ruddigkeit, D. (2009), Border Tax Adjustments, p. 18 and footnote 79; Volmert, B. (2011), Border Tax Adjustments, p. 71.

special CBAM certificates for a price mirroring the price of EU-ETS allowances. However, if this is the case depends on the actual design of the notional ETS:

- On the one hand, a notional ETS could be regarded as a fiscal measure equivalent to an "internal tax or other internal charge". Given that the price of CBAM certificates would be directly linked to the price of EU-ETS allowances, which itself is based on the use of fossil fuels and the associated GHG emissions in the production process, one could argue that it would be in essence an equivalent to an energy or carbon consumption tax. Since such indirect "taxes occultes" are adjustable, an equivalent price for CBAM certificates mirroring the price of EU-ETS allowances could also be regarded as an adjustable CBAM.

- On the other hand, however, even a notional ETS could involve more costs than just the price for CBAM certificates mirroring the price of EU-ETS allowances. Such additional administrative costs could arise in connection with a "import authorisation procedure" for imported goods, the verification of their embedded emissions and the purchasing of CBAM certificates as foreseen in the CBAM-Regulation leaked on 3 June 2021[160]. Such additional administrative costs are more closely associated with non-adjustable regulatory measures or procedures ("laws, regulations and requirements") [Art. III:4 GATT]. Consequently, it is doubtful whether they could be qualified as an adjustable fiscal measure ("internal tax or other internal charge") [Art. III:2, first sentence GATT]. Depending on the actual design of a notional ETS, such additional administrative costs could pose a considerable concern regarding its compatibility with WTO law.[161]

5.2.1.2 "Like Products"?

The requirement for non-discrimination between imported and domestic goods pursuant to the national-treatment principle only applies to "like products" [Art. III:2, first sentence GATT]. Therefore, with regard to a CBAM the question arises if, e.g., one tonne of aluminium produced in countries outside the EU using electricity generated with fossil fuels is "like" one tonne of aluminium produced using electricity generated with renewable energies.[162] On the one hand, it could be argued that due to the different "process and production methods" (PPMs) and the overall different amount of GHG emissions caused by the production of one tonne of aluminium ("carbon footprint"), imported and domestic aluminium are not "like products".[163] Consequently, the national-treatment principle would not apply and not prohibit different treatment of imported and domestic aluminium. On the other hand, since the GHG emissions are themselves not physically present in the final products, one could argue that imported carbon-intensive aluminium and domestic less carbon-intensive aluminium share the same physical properties and are therefore "like products".

In the practice of WTO dispute settlement bodies, the "likeness" of products is examined on a case-by-case basis,[164] applying essentially four criteria:[165]

---

[160] See above subsection 3.3.1.2.

[161] See also Kopernikus-Projekte Ariadne – Potsdam Institut für Klimafolgenforschung (2021), Industriewende: Wettbewerbseffekte und Carbon Leakage, Ariadne-Kurzdossier – Juli 2021, p. 13.

[162] Mehling, A. et al. (2019), Border Carbon Adjustments, p. 460.

[163] Pauwelyn, J. (2013), Carbon Leakage Measures and Border Tax Adjustments Under WTO Law, in: Van Calster, G. / Prévost, D. (eds.), Research Handbook on Environment, Health and the WTO, pp. 448–506(489).

[164] *European Communities – Measures Affecting Asbestos and Products Containing Asbestos* [hereinafter: *EC–Asbestos*], Report of the Appellate Body adopted on 5 April 2001, WT/DS135/AB/R, § 101; *Japan-Taxes on Alcoholic Beverages*, Report of the Appellate Body adopted on 1 November 1996, WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R, p. 20 et seq.

[165] GATT Working Party (1970), Border Tax Adjustments, Report L/3464, § 18.

(1) the properties, nature and quality of the products;

(2) their end-uses;

(3) their tariff classification;[166] and

(4) consumers' tastes and habits in respect of the products.

These criteria, however, are non-exhaustive and "simply tools to assist in the task of sorting and examining the relevant evidence" in a specific case.[167] The products under consideration for the introduction of a CBAM – such as aluminium, steel or cement – share the same (1) physical properties, nature and quality, (2) end-uses and (3) tariff classification and are therefore "like products". Nevertheless, since it has been argued with regard to products physically containing asbestos fibres that the associated health risks may well influence "consumers' tastes and habits" (4),[168] one could claim that the multiple risks of climate change could similarly influence consumers' preferences and cause them to distinguish between "unlike" carbon-intensive and less-carbon intensive aluminium, steel or cement. While this may be the case in the future, at least at present there is no evidence that in practice this is actually the case in international markets for such products. Furthermore, WTO dispute settlement bodies have stressed that the concept of "likeness" of products regarding BTAs pursuant to Art. III:2, first sentence GATT should be narrowly interpreted.[169] Consequently, despite the different carbon-intensity due to different "process and production methods" (PPMs), imported carbon-intensive aluminium and domestic less carbon-intensive aluminium would most probably be regarded as "like products" pursuant to Art. III:2 GATT, requiring non-discriminatory treatment.[170]

5.2.1.3 Comparison of Fiscal Burden: "Not in Excess"?

Given the probable "likeness" of the products under consideration for an CBAM for imported products despite their higher carbon intensity, the question remains whether it would be "in excess" compared to the equivalent internal fiscal measure applied to like domestic products according to Art. III:2, first sentence GATT. In this respect, "even the smallest amount of 'excess' is too much."[171] In particular, the prohibition of discriminatory treatment of imported and domestic like products does not allow any *de minimis* exceptions and is not conditional on an actual protectionist effect on international trade.[172]

An essential challenge for ensuring compliance with this requirement is the determination of the exact carbon costs borne by specific imported products and like domestic products.[173] A way to lower the risk that imported products have to bear a higher financial burden is the application of the lowest charges incurred by any domestic producer. To make this practically feasible, it has been suggested to estimate the lowest carbon costs necessary for manufacturing a products by using the lowest possible

[166] The criterion "tariff classification" was not mentioned by the 1970 Working Party on Border Tax Adjustments, but was included, e.g., in *Japan Customs Duties, Taxes and Labelling Practices on Imported Wines and Alcoholic Beverages*, Panel Report adopted 10 November 1987, L/6216, § 5.6.

[167] *EC–Asbestos*, Report of the Appellate Body adopted on 5 April 2001, WT/DS135/AB/R, § 102.

[168] Id., § 122.

[169] *Japan – Taxes on Alcoholic Beverages*, Report of the Appellate Body adopted on 1 November 1996, WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R, p. 21.

[170] Prevailing opinion in legal literature. See, e.g., Volmert, B. (2011), Border Tax Adjustments, p. 55 with further references; Mehling, A. et al. (2019), Border Carbon Adjustments, p. 461.

[171] *Japan – Taxes on Alcoholic Beverages*, Report of the Appellate Body adopted on 1 November 1996, WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R, p. 23.

[172] Id.

[173] Volmert, B. (2011), Border Tax Adjustments, p. 71 et seq.

level of the consumption of fossil fuels and hence of GHG emissions if manufactured with the "best available technology" ("benchmark").[174] Furthermore, the EU must take into account those carbon costs already incurred by an imported product in its country of origin. To meet these requirements, the Commission's CBAM-Draft-Regulation leaked on 3 June 2021 foresees that an importer may apply to the Commission for a reimbursement of the price paid for CBAM certificates corresponding to a calculation of the "actual" – potentially lower – embedded GHG emissions in the imported products.[175] In addition, according to the CBAM-Draft-Regulation the importer may also apply for a compensation corresponding to the carbon price paid in the country of origin for the embedded emissions in imported products.[176]

5.2.2 Non-Discrimination: Most-Favoured-Nation-Principle, Art. I GATT

In addition to the principle of national treatment between imported products and domestic products manufactured in the EU regarding carbon pricing, non-discrimination is also required between imported products originating in different third countries pursuant to the "general most-favoured-nation treatment" (MFN) [Art. I:1 GATT]: "With respect to customs duties and charges of any kind imposed on or in connection with importation/exportation … and with respect to all matters referred to" in Art. III:2 and Art. III:4 GATT, "any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties."

The relevance of the MFN-principle for the introduction of a CBAM is highlighted by the fact that it explicitly applicable to "all matters" referred to Art. III:2 GATT. In this respect, a legal dilemma arises: On the one hand, the MFN-principle would prohibit the EU to discriminate between like imported products originating from different WTO members. On the other hand, the national-treatment-principle would require the EU to take into account those carbon costs already incurred by an imported product in its country of origin – which could be regarded as a prohibited discrimination of products originating from countries which do not impose such carbon costs,[177] which is especially the case in developing countries.[178] Therefore, the additional question arises whether in this respect a differential and more favourable treatment of developing countries and least developed countries is allowed or even required ("enabling clause").[179] The CBAM-Regulation leaked on 3 June 2021[180], however, does not include such an "enabling clause". Like other breaches of basic WTO requirements regarding import CBAMs, this legal dilemma can only be solved if WTO law allows for a justification in the form of a "general exception" according to Art. XX GATT.

---

[174] Hilbert, J. / Berg, H. (2009), Border Tax Adjustments for Additional Costs Engendered by Internal and EU Environmental Protection Measures: Implementation Options and WTO Admissibility, UBA (ed.), Climate Change 07/2009 [hereinafter: Hilbert, J. / Berg, H. (2009), Border Tax Adjustments], p. 8 with further references.

[175] EU Commission (2021), CBAM-Draft-Regulation (Leak of 3 June 2021), Art. 42(1).

[176] Id., Art. 43(1).

[177] Hilbert, J. / Berg, H. (2009), Border Tax Adjustments, p. 20; Volmert, B. (2011), Border Tax Adjustments, p. 83; Mehling, A. et al. (2019), Border Carbon Adjustments, p. 463.

[178] Ruddigkeit, D. (2009), Border Tax Adjustments, p. 24 et seq.; Volmert, B. (2011), Border Tax Adjustments, p. 82.

[179] GATT Secretariat, Differential and More Favourable Treatment, Reciprocity and Fuller Participation of Developing Countries, Decision of 28 November 1979, BISD 26S/191. See Mehling, A. et al. (2019), Border Carbon Adjustments, p. 463 et seq.

[180] See above subsection 3.3.1.2.

5.3 Export CBAM Options

WTO requirements on BTAs should apply "the principle of destination identically to imports and exports".[181] Consequently, "products destined for exports can be exempted from taxes borne by like products destined for domestic consumption, the idea being that the exported products will be taxed where they are consumed, i.e. in the country of destination."[182] However, it needs to be clarified if pursuant to the Agreement on Subsidies and Countervailing Measures (ASCM) export CBAMs qualify as prohibited "export subsidies" [Art. 1, 2 and 3:1(a) in conjunction with Annex I(g) ASCM] or at least as actionable "export subsidies" [Art. 5 and 6 ASCM].

5.3.1 "Prohibited" Export Subsidy?

In general, subsidies which are "contingent, in law or in fact, whether solely or as one of several other conditions, upon export performance" are prohibited [Art. 3:1(a) in conjunction with Annex I(g) ASCM ("Illustrative List of Export Subsidies")]. In this context, a "subsidy" is any "financial contribution by a government or any public body, i.e. where (i) a government practice involves a direct transfer of funds or (ii) government revenue that is otherwise due is foregone or not collected" [Art. 1:1(a) ASCM] and "a benefit is thereby conferred" [Art. 1:1(b) ASCM]. Furthermore, such a public financial contribution conferring a benefit must be "specific" to "certain enterprises" [Art. 2 ASCM]. Even if an export CBAM can be regarded as such an "export subsidy", however, 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" – in accordance with Note Ad Art. XVI GATT and Annex I–III ASCM – "not be deemed to be a" prohibited "export subsidy" [Art. 1:1(a)(1)(ii) footnote 1 ASCM]. Accordingly, if options for an export CBAM fulfil the basic definition of an "export subsidy", 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" must not be "in excess of those which have accrued" in order to be WTO compliant.

In principal, all options for an export CBAM under consideration – a reimbursement of EU-ETS allowance costs for EU exporters in form of "partial offsets" (EX1), "annual refunds" for exports (EX2), "export rebates" linked to the most efficient installation (EX3) or free allocation of EU-ETS allowances at least for exporters (EX4) – could fulfil the definition of an "export subsidy": They could be qualified as "financial contributions by a government or any public body" in the form of "government revenue otherwise due" that is "foregone or not collected" [Art. 1:1(a)(1)(ii) ASCM], thereby conferring a "benefit" [Art. 1:1(b) ASCM] to a limited group of "certain enterprises" ["specifity", Art. 2 ASCM].

Furthermore, in order for such "export subsidies" to be regarded as not prohibited, they must be not "in excess" of the "duties or taxes borne by the like product when destined for domestic consumption." In this respect, the design of all potential options for an export CBAM would have to take into account the combination with an import CBAM and the financial burden posed on imported products. While overcompensation for exports principally prohibited by WTO requirements could be ensured by the specific design of the first three CBAM (EX1-EX3), there is uncertainty, however, with regard to the legal assessment of a combination of the current practice of free allocations of allowances to installations in sectors considered to be exposed to a significant risk of carbon leakage with an import

[181] GATT Working Party (1970), Border Tax Adjustments, Report L/3464, § 10.
[182] WTO (1997), Border Tax Adjustment, WT/CTE/W/47, § 59.

CBAM.[183] In this respect, fluctuating allowance prices within the EU-ETS make overcompensation possible, since companies could make a profit with regard to allowances which originally have been allocated free of charge.[184] Nevertheless, if the EU could ensure that the amount of "allowances allocated for free to exporters does not exceed the amount they would otherwise have to purchase at auction if their goods were sold into the domestic market. As long as free allocation for GHG emissions associated with exported products" (EX4) is "based on the current benchmarking system and is combined with full auctioning for emissions associated with products sold into the domestic market, this condition is likely to be met."[185] However, in cases where "the eventual destination of the product is uncertain at the time of production", this could be "technically challenging".[186] Consequently, a redesign of the current EU-ETS system of free allocation would be necessary to ensure that exporters do not benefit from free allocation "in excess" of the carbon costs to be borne by products destined for the domestic EU market.

The Commission's CBAM-Draft-Regulation leaked on 3 June 2021 foresees a different approach. Accordingly, as of 2026 the CBAM certificates to be surrendered by importers must be reduced in number to reflect the extent to which allowances within the EU-ETS are allocated free of charge to EU producers in installations producing the same kind of goods within the EU.[187]

5.3.2 "Actionable" Export Subsidy?

Even if overcompensation for exports prohibited by WTO requirements could be avoided by the specific design of an export CBAM, all options could still be deemed as "actionable export subsidies" [Art. 5 and 6 ASCM].[188] Accordingly, no WTO member must cause through the use of an export subsidy "adverse effects" to "the interests" of other WTO members. What constitutes such "adverse effects on the interests" of other WTO member is defined in very broad terms. It could be an "injury to the domestic industry" or a "serious prejudice to the interests" of another country [Art. 5 GATT]. Out of the many potential cases constituting a "serious prejudice", the following are of special relevance with regard to an export CBAM: The effect of the subsidy is to displace or impede the imports of a like product of another WTO Member into the market of the subsidizing WTO Member [Art. 6:3(a) GATT]; or the effect of the subsidy is to displace or impede the exports of a like product of another Member from a third country market [Art. 6:3(b) GATT].

Whether an export CBAM fulfils these legal preconditions with respect to a specific WTO member and qualifies as an "actionable" export subsidy cannot be answered in advance with a blanket "yes" or "no", but is rather – as the classification as an "actionable" export subsidy already shows – to be assessed on a case-by-case basis, taking into account all relevant circumstances. As such, however, it is a potential basis for individual WTO members to take action against the EU, thereby posing an additional legal risk for non-compliance with WTO requirements.

---

[183] Evans, S. et al. (2020), Border Carbon Adjustments and Industrial Competitiveness in a European Green Deal, Cambridge Working Papers in Economics 2036 [hereinafter: Evans, S. et al. (2020), Border Carbon Adjustments], p. 4 et seq. with further references.

[184] Jegou, I. / Rubini, L. (2011), The Allocation of Emission Allowances Free of Charge: Legal and Economic Considerations, p. vii; Mehling, A. et al. (2019), Border Carbon Adjustments, p. 471 with further references.

[185] Evans, S. et al. (2020), Border Carbon Adjustments, p. 13.

[186] Mehling, A. et al. (2019), Border Carbon Adjustments, p. 471.

[187] CBAM-Draft-Regulation (Leak of 3 June 2021), Art. 37(1); see above subsection 3.3.1.2.

[188] Dröge, S (2021), Ein CO_2-Grenzausgleich für den Green Deal der EU – Funktionen, Fakten, Fallstricke, SWP-Studie 9, p. 16.

5.4 Justification, Art. XX GATT

If the specific design of an import or export CBAM is not be entirely compliant with one of the aforementioned WTO requirements, such breaches may be justified if certain conditions pursuant to Art. XX GATT ("General Exceptions") are strictly met. While Art. XX GATT is clearly applicable with regard to breaches of GATT provisions – such as the MFN-principle [Art. I GATT] and the national-treatment-principle [Art. III GATT] – by the introduction of an import CBAM, it remains disputed whether its "general exceptions" can also be invoked for breaches of ASCM requirements caused by an export CBAM.[189]

With regard to import and export CBAMs and their ultimate objective to limit the risk of carbon leakage so as not to increase the overall global GHG emissions, the only justifications potentially invokable are the two "environmental exceptions" for breaches of WTO requirements pursuant to Art. XX(b) and Art. XX(g) GATT. The protection of the international competitiveness of the EU economy is – at least taken only for itself – not justifiable pursuant to Art. XX GATT.[190] In order to justify a breach of WTO requirements, a CBAM must be either "necessary to protect human, animal or plant life or health" [Art. XX(b) GATT] or "relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption" [Art. XX(g) GATT]. Furthermore, even if one of these conditions is fulfilled, a CBAM must not "be applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade" [so-called "chapeau" of Art. XX GATT].

In the light of the negative impacts of climate change, the EU could argue that the prevention of carbon leakage through a CBAM serves to protect human, animal or plant life or health [Art. XX(b) GATT] or the conservation of exhaustible natural resources health [Art. XX(g) GATT]. Consequently, the EU would have to demonstrate that the introduction of an import or export CBAM is either necessary or at least relating to reducing the risk of carbon leakage in order to limit or reduce overall global GHG emissions.

5.4.1 Necessary for the Protection of Human/Animal/Plant Life or Health?

With regard to the "necessity" of an import or export CBAM to protect human, animal or plant life or health pursuant to Art. XX(b) GATT, the contribution of a CBAM to the achievement of the environmental objective must be "material", which requires "a genuine relationship of ends and means between the objective pursued and the measure at issue."[191] Such a "genuine relationship" exists if the EU could demonstrate that the CBAM is primarily aimed at reducing the risk of carbon leakage to protect the climate. While a CBAM must not be "indispensable" to achieve this environmental objective, the determination of its "necessity" must be "a process of weighing and balancing a series of factors" which should include, *inter alia*, its contribution to reducing the risk of carbon leakage, the importance of this objective, and its impact on international trade.[192] Consequently, the proportionality of the measure is decisive and its "contribution […] has to be weighed against its trade restrictiveness, taking

[189] Jegou, I. / Rubini, L. (2011), The Allocation of Emission Allowances Free of Charge: Legal and Economic Considerations, p. x.
[190] Mehling, A. et al. (2019), Border Carbon Adjustments, p. 465 with further references.
[191] *Brazil – Measures Affecting Imports of Retreaded Tyres* [hereinafter: *Brazil –Retreaded Tyres*], Report of the Appellate Body of 3 December 2007, WT/DS332/AB/R, § 210.
[192] *Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef*, Report of the Appellate Body of 11 December 2000, WT/DS161/AB/R, WT/DS169/AB/R, § 164.

into account the importance of the interests or the values underlying the objective pursued by it."[193] In this respect, a measure could be deemed "necessary" if no less trade-restrictive alternatives are "reasonably available".[194] Therefore, the question arises whether the introduction of a CBAM is really "necessary" to minimise the risk of carbon leakage or whether keeping the current system of free allocation of allowances instead would be a sufficient and less-trade restrictive approach. And indeed, there is a strong case that the current system of free allocation of allowances regarding goods produced within the EU is a "less trade restrictive measure" compared to levying a charge on imports.

5.4.2 Relating to the Conservation of Exhaustible Natural Resources?

Even if the "necessity" of a CBAM could not be established pursuant to Art. XX(b) GATT, however, the EU could still argue that a CBAM is at least "relating to the conservation of exhaustible natural resources". Accordingly, a CBAM would have to be "reasonably related"[195] to "exhaustible natural resources", which also include living resources[196] and clean air[197]. Against this background, it could be well argued that Art. XX(g) GATT applies to the climate both with respect to its function as a "carbon sink" with limited capacity to absorb GHG emissions without negative consequences as well as to the negative impacts of climate change, e.g., on biodiversity or the availability of freshwater.

Furthermore, given that the CBAM aims at the protection of the global climate also by incentivising third countries to adopt stricter climate policies,[198] the question arises whether such a measure with extraterritorial effect would be incompatible with the principle of sovereignty of other countries.[199] However, since the global climate is a common good and climate change inevitably impacts the EU and its member states as well third countries, one could argue that there is a "sufficient nexus"[200] between a CBAM and its primary aim of climate protection.

Again, a "close and genuine relationship" between "ends and means" is also required regarding Art. XX(g) GATT.[201] In addition, the CBAM would have to be made effective "in conjunction with restrictions on domestic production or consumption". In this respect, WTO dispute settlement bodies have stipulated that the measure in question must be "primarily aimed at ensuring rendering the effectiveness of such "restrictions on domestic production or consumption".[202] While it is unclear whether this restrictive requirement would still be applied today,[203] the EU could argue that a CBAM on imported products is directly related to the carbon costs imposed on domestically produced goods subject to the EU-ETS and that it primarily aims at protecting the effectiveness of this system of carbon pricing. Therefore, the EU would have to demonstrate that the CBAM is primarily aimed at reducing

---

[193] *Brazil – Retreaded Tyres*, Report of the Appellate Body of 3 December 2007, WT/DS332/AB/R, § 210.
[194] Id.; *EC–Asbestos*, Report of the Appellate Body adopted on 5 April 2001, WT/DS135/AB/R, § 151.
[195] Id., § 141.
[196] *United States – Import Prohibition of Certain Shrimp and Shrimp Products* [hereinafter: *US – Shrimp*], Report of the Appellate Body of 12 October 1998, WT/DS58/AB/R, § 128.
[197] *United States – Standards for Reformulated and Conventional Gasoline* [hereinafter: *US – Gasoline*], Panel Report of 29 January 1996, WT/DS2/R, , § 6.37.
[198] See above subsection 3.1.3.
[199] Volmert, B. (2011), Border Tax Adjustments, p. 101 with further references.
[200] *US– Shrimp*, Report of the Appellate Body of 12 October 1998, WT/DS58/AB/R, § 133.
[201] Id., § 136.
[202] *Canada – Measures Affecting Exports of Unprocessed Herring and Salmon*, Report of the Panel adopted on 22 March 1988, L/6268, § 4.6; *US – Gasoline*, Panel Report of 29 January 1996, WT/DS2/R, § 6.39.
[203] *US – Shrimp*, WT/DS58/AB/R, § 135 et seq.; Stoll, P.-T. / Jürging, J. (2017), Umweltschutz und Handel, in: Proelß, A. (ed.), Internationales Umweltrecht, Abschnitt 6, Randnummer 18, p. 195 et seq.

the risk of carbon leakage to protect the climate and not merely at the protection of the international competitiveness of the EU economy.

5.4.3 Arbitrary or Unjustifiable Discrimination or Disguised Trade Restriction?

Finally, if another WTO member should challenge the introduction of a CBAM by the EU, the EU would need to proof that an import or export CBAM does not constitute a means of arbitrary or unjustifiable discrimination between countries with same conditions or a disguised restriction on international trade ["chapeau" of Art. XX GATT]. In general, while WTO members are free to adopt their own environmental policies as long as they fulfil their obligations and respect the rights of other WTO members pursuant to WTO agreements[204], measures supposedly aimed at the protection of the environment or the climate must not be misused for protectionism.[205] Whether this is the case has to be determined on an individual basis by examining the actual application of the measure in practice.[206]

With regard to the introduction of a CBAM, WTO dispute settlement bodies would therefore have to evaluate all relevant circumstances,[207] including, e.g., the good faith[208] of the EU not to misuse a CBAM as a protectionist measure and "serious efforts"[209] of the EU to cooperate with other WTO members, e.g., in the form of "serious, across-the-board negotiations with the objective of concluding bilateral or multilateral agreements"[210] in order to find alternative, less trade-restrictive solutions prior to unilaterally introducing a CBAM. Furthermore, the EU would have to accept comparable measures for the reduction of GHG emissions of third countries.[211]

In sum, while it is possible that the EU could fulfil these requirements for invoking an environmental exception which would justify a breach of WTO requirements, also in this respect the legal risks posed by the introduction of a CBAM with regard to its WTO-compatibility ultimately depends on all relevant circumstances, especially regarding its actual design and application.

5.5 Interim Conclusions

In sum, while certain options for import CBAMs (IM3, IM4a and IM4b) and export CBAMs (EX1-EX4) can in principal be designed to be compliant with the basic WTO requirements especially of non-discrimination, significant risks depending on their actual design and application remain. In contrast, the current system of free allocation of allowances within the EU-ETS is clearly a "less trade-restrictive" "alternative measure" against carbon leakage. Consequently, keeping the current system of free allowance without introducing an import CBAM – with or without combining it with an export CBAM – would be less at risk of being found to be incompatible with WTO law.

---

[204] *US – Gasoline*, Report of the Appellate Body adopted on 20 May 1996, WT/DS2/AB/R, p. 30.
[205] *Brazil – Retreaded Tyres*, Report of the Appellate Body of 3 December 2007, WT/DS332/AB/R, § 215.
[206] *United States – Imports of Certain Automotive Spring Assemblies*, Report of the Panel adopted on 26 May 1983, L/5333, § 56.
[207] WTO, WTO rules and environmental policies: GATT exceptions.
[208] *Brazil – Retreaded Tyres*, Report of the Appellate Body of 3 December 2007, WT/DS332/AB/R, § 215.
[209] *US – Shrimp*, Report of the Appellate Body of 12 October 1998, WT/DS58/AB/R, § 133.
[210] Id., § 166.
[211] Mehling, A. et al. (2019), Border Carbon Adjustments, p. 468 et seq. with further references.

6 Economic, Environmental, Technical and Political Implications

In the light of the objectives which are potentially pursued with a CBAM, the WTO-compatible options for import and export CBAM instruments will be assessed and compared with regard to their economic, environmental, technical and political implications, taking into account certain preliminary considerations and applying a set of evaluation criteria.

6.1 Preliminary Considerations and Evaluation Criteria

To streamline this comparison of import and export CBAM instruments, the following preliminary considerations will be taken into account:

- The question whether existing carbon leakage protection measures should partly or entirely be phased-out can only be answered based on an assessment of whether the CBAM instruments for imports and exports that best address the other objectives and challenges of a CBAM would justify it. Therefore, a phase-out of carbon leakage measures is not an end in itself and consequently not an assessment criterion in its own right.

- Furthermore, the generation of own resources as revenue for the EU budget may be, for the EU or the Member States, a side effect associated with any CBAM. However, since the maximisation of revenues could have negative impacts on the other objectives of a CBAM, the amount of revenues should not be an evaluation criterion.

- The objective to reduce the overall carbon footprint of the EU will be achieved – to different extents – through any import CBAM instrument by transmitting an appreciable carbon price signal to consumers in line with the EU-ETS allowance price, regardless of whether the products are manufactured in the EU or imported.

- If a CBAM successfully creates a “level playing field” between competing products from third countries and the EU, third countries will no more be able to provide their producers with a comparative advantage in the EU market by absent or less stringent climate policies in general and carbon pricing in particular. Consequently, these countries might be more inclined to introduce more stringent climate policies or even carbon pricing equivalent to the one in the EU.

- Finally, the objective to address the dual concern of carbon leakage is relevant in various respects: firstly with regard to its environmental effectiveness to make a contribution to the overall reduction of global GHG emissions, secondly the interlinked protection of the competitiveness of EU producers, and thirdly the criterion of efficiency of climate protection.

Taking into account the aforementioned considerations, the following seven evaluation criteria will be applied for the assessment and comparison of the different import and export CBAM instruments:[212]

[212] Similar criteria for a restricted number of options are used in: Wissenschaftlicher Beirat beim BMWi (2021), Gutachten.

(1) Protection of Competitiveness: Can the competitiveness of EU producers be preserved against their competitors that do not bear carbon costs in their home country?

(2) Environmental Effectiveness: Can the effectiveness of the EU-ETS to reduce GHG emissions be preserved with the instrument? Can the leakage of emissions be avoided so that overall no additional GHGs are emitted globally?

(3) Economic Efficiency: Is the reduction of GHG emissions induced by the instrument cost efficient?

(4) Consistency with Climate Obligations and Policy Instruments of the EU: Is the functioning of the EU-ETS to control the "territorial emissions" of GHGs within the EU preserved with the instrument?

(5) Technical and Administrative Feasibility: Can complex information gathering and calculations be avoided? Are administrative costs minimised?

(6) Minimisation of International Trade Conflict Risks: Does the instrument avoid measures that might stir up international trade conflicts and provoke retaliatory measures from EU trading partners?

(7) Minimum Misuse Potential for Protectionism: Does the instrument offer little scope for its potential misuse for protectionist purposes?

6.2 Import CBAM Options

By imposing taxes or other charges levied on products imported into the EU market, import CBAM instruments aim at creating a level playing field with competing products manufactured in the EU. Thus, EU producers manufacturing for the internal market ("domestic producers") are protected against the risk of carbon leakage. In this way, however, import CBAM instruments do not affect the competitiveness of EU producers exporting their products to third countries ("exporters"). With this qualification in mind, in the following the import CBAM instruments will be assessed pursuant to the aforementioned criteria.

6.2.1 Protection of Competitiveness

IM1: With import CBAM instruments that apply at the border, effective protection for domestic producers can in principle be ensured by obliging also importers to pay a carbon price. This can be achieved by a customs duty (option IM1), but effectively and lastingly only if it is adjusted regularly to the prevailing allowance price in the EU-ETS.

IM2-IM3: The same result can be achieved through the extension of the EU-ETS to imports (option IM2) by requiring allowances to be surrendered for imports subject to the same allowance price as domestic products, or through a notional ETS (option IM3) so that imports are subject to the same allowance price as domestic products as well.

IM1-IM3: However, in each case (options IM1-IM3) the inevitably imprecise calculation of the carbon content of imports and the reference to benchmark emissions or average carbon contents of products produced in the EU means that domestic producers may continue to be at a considerable competitive disadvantage compared to carbon-intensive foreign producers.[213]

IM4a: A CCT which replaces the obligation of affected EU companies to participate in the EU-ETS (option IM4a) establishes fair competition on the EU market.[214] This is because the CCT applies simultaneously to domestic products and to imports, using the same calculation base and benchmarks and no additional carbon costs apply to EU companies. Since a CCT does not apply to exports and exporting companies also stop participating in the EU-ETS this option exempts exporters from carbon costs and preserves fair competition in the world market, as well.

IM4b: In the case of a CCT that is to coexist with the obligation of domestic producers to participate in the EU-ETS (option IM4b), on the one hand domestic producers do have to bear the costs of the CCT in the same way as their foreign competitors importing to the EU which ensures fair import competition with respect to the CCT obligations, but on the other hand they also have to pay the carbon price for allowances. In order to avoid such double carbon pricing, the free allocation of allowances is crucial for the protection of the international competitiveness of EU producers.[215] With a full free allocation of allowances up to a benchmark, fair competition on the EU market and on the world market is ensured for EU domestic producers who manufacture only emitting GHG close to the benchmark. Other producers with more carbon-intensive products do have, on the one hand, a competitive disadvantage but on the other hand, an incentive to reduce the GHG emissions of their products to a level close to the benchmark. Notwithstanding, a CCT that is combined with a full free allocation of allowances up to a benchmark (option IM4B) would be an improvement of carbon leakage protection since in the status quo the free allocation up to a benchmark is limited by the overall availability of free allowances.

However, a key drawback of all these import CBAM instrument options is the fact that domestic producers would have to pay a carbon price corresponding to their entire production, while producers from outside the EU who export into the EU would have to pay such carbon costs only for this limited part of their overall production and could cross-subsidise their exports to the EU gaining competitive advantage.[216] In this regard, the EU would be forced to react with anti-dumping tariffs in order to protect the international competitiveness of its domestic producers.

6.2.2 Environmental Effectiveness

IM1-IM3, IM4b: With regard to the CBAM instruments of customs duties (option IM1), extending the EU-ETS (option IM2), introducing a notional ETS (option IM3) or levying a CCT in combination with free allocation of allowances for exports (option IM4b), the effective reduction of GHG emissions caused by EU producers would be ensured by the cap of the EU-ETS.

---

[213] Wissenschaftlicher Beirat beim BMWi (2021), Gutachten, p. 23.
[214] Neuhoff, K. et al. (2016).
[215] See Neuhoff, K. et al. (2016) for a comprehensive presentation of this proposal.
[216] See also EUROFER (2021), European Parliament carbon border vote proves majority support for stronger carbon leakage protection to match greater climate ambition, footnote 1.

IM4a: With a CCT as substitute for the EU-ETS (option IM4a), the effectiveness is not guaranteed, since domestic production is then not geared anymore directly by the cap of the EU-ETS, which limits and reduces the overall amount of GHG emissions effectively, but only indirectly through its price signal that is not influenced anymore by the emissions of domestic producers. Moreover, exporters would not have to bear any carbon costs and the lack of incentives to abate would drastically reduce the effectiveness of the EU climate policy.

IM1-IM3, IM4b: In the other cases where the EU-ETS is effectively limiting territorial GHG emissions, the only threat to the effectiveness of CBAM instruments for imports is carbon leakage. Since leaked emissions would add to the world-wide GHG emissions: Although at first these leaked emissions are reduced in the EU and transferred to other countries, the reduction of GHG emissions by the companies concerned frees up EU-ETS allowances that can be used by other emitters such that EU GHG emissions are ultimately not reduced. Moreover, no unilateral implementation of a CBAM by the EU can address the problem of indirect carbon leakage – induced by falling fossil fuel prices through reduced demand by the EU – if it does not inspire more reduction of GHG emissions in third countries. Direct leakage through substitution of domestic production by imports is addressed by import CBAM instruments to varying degrees, depending on their ability to protect the competitiveness of domestic producers:[217] A CCT that is combined with a full free allocation of allowances up to a benchmark (option IM4B) would be an improvement of carbon leakage protection. In case of the import CBAM instruments at the border (options IM1-IM3) the inevitably imprecise calculation of the carbon content of imported products and the reference to benchmark emissions or average carbon contents of EU products might not reduce the carbon leakage risk to the same extent.

Moreover, any orientation towards EU benchmark values limits the incentives for foreign producers to reduce GHG emissions since the average carbon intensity of production in many countries tends to be considerably higher than that in the EU.[218] If producers from third countries were allowed to prove individually a lower carbon content of the imported product, however, they would have incentives for less carbon-intensive production methods.[219]

6.2.3 Economic Efficiency

IM1-IM3, IM4b: As far as domestic production is still subject to the EU-ETS (options IM1-IM3 and IM4b), its GHG emissions will still be reduced efficiently by the possibility to trade allowances in the EU-ETS. Within the EU-ETS, those producers who only face abatement costs lower than the allowance price have an economic incentive to abate and will sell their allowances to producers with higher abatement costs. In this way, the EU-ETS provides incentives for EU producers to decarbonise their production whenever the allowance price is higher than the marginal abatement costs[220]. This efficiency feature of the EU-ETS is also preserved in case of the free allocation of allowances (option IM4b).

In addition to this efficient way the market "decides" which company will reduce GHG emissions most cost-effectively by modifying its production technology, the transmission of the carbon price signal to consumers ("pass-through") increases the efficiency. With this pass-through, additional strategies to reduce GHGs come into play: consumers now also have incentives to reduce the use of some carbon

[217] See subsection 6.2.1.
[218] Wissenschaftlicher Beirat beim BMWi (2021), Gutachten, p. 23.
[219] Id.
[220] Bonn, M. / Reichert, G. / Voßwinkel, J., Carbon Leakage – Reform des EU-Emissionshandels ab 2021 und globaler Klimaschutz, cepInput 04/2016, p. 5.

intensive goods or to substitute them for less carbon intensive goods. This pass-through can be enabled by putting imports and domestically produced goods on equal footing by subjecting them to the same carbon price via CBAM instruments for imports (options IM1-IM3) at the border or by a CCT applicable for both (IM4a-IM4b).

IM4a: Since a CCT is product-based and only average or benchmark emissions can be attributed to goods, the reduction of GHG emissions in domestic production through a CCT alone – exempting the subjected products from the EU-ETS (option IM4a) – is not as efficient as through the EU-ETS.

IM4b: However, if a CCT is combined with the free allocation of allowances under the EU-ETS (IM4b), the efficiency induced by the trade-feature of the EU-ETS is preserved for abatement decisions for production. The CCT then increases efficiency by incorporating consumer decisions as additional strategies to reduce embedded GHG emissions.

6.2.4 Consistency with Climate Obligations and Policy Instruments of the EU

IM1-IM3: All import CBAM instruments at the border (options IM1-IM3) leave the basic functioning of the EU-ETS as principal instrument for the abatement of territorial GHG emissions of EU industry untouched: Firstly, the cap for the sum of territorial emissions is still binding. Secondly, the continued trade with allowances leads to the efficient reduction of GHG emissions. However, prominent voices in the current discussion on a CBAM arrive at a different conclusion, claiming that consistency is guaranteed only when exporters are not compensated for their allowance costs.[221] The argument is that if exporting firms were compensated, the allowance price would give them no incentive to decarbonise to a level below the benchmark, even if the allowance price is higher than abatement costs.[222] In effect, all CBAM instruments for imports at the border combined with compensation for exporters would mean a change from pricing production to pricing consumption.[223] However, without compensation carbon leakage would prevail.[224] Although these arguments would be valid in the context of a carbon price through a price-based instrument like a carbon tax, this opinion overlooks the effect of the binding cap that is the core feature of an ETS such as the EU-ETS: Even without letting the exporters feel the price signal of carbon costs, the quantitative restriction of available allowances applies strictly to all territorial GHG emissions of the participating sectors.

IM2: In case of an extension of the EU-ETS to imports (option IM2), however, the territorial GHG emissions of the EU would not be limited by the cap of the EU-ETS if domestic producers managed to expand their market share in the EU to the detriment of imports. This is because even if initially the number of allowances is increased to cover imports, a later shift from imports to domestic production would give the EU industry and energy sector the possibility to buy more allowances and hence emit more GHG emissions than originally allocated to them. The CBAM would not be consistent with the effective control of territorial emissions.

IM3: This problem, however, can be solved by a notional ETS (option IM3).

[221] Wissenschaftlicher Beirat beim BMWi (2021), Gutachten, p. 25.
[222] Id., p. 15.
[223] Id., p. 16.
[224] Id., p. 23.

IM4a-IM4b: If the sectors subject to the CCT ceased to be included into the EU-ETS (option IM4a), it would lose its role as principal instrument to abate territorial emissions. If, however, the CCT was designed merely to complement the EU-ETS (option IM4b), the capacity of the EU-ETS to effectively abate territorial emissions would be preserved. Furthermore, the European Parliament's call for maintaining free allowances[225] could be respected since otherwise there would be a double carbon pricing for EU producers.

6.2.5 Technical and Administrative Feasibility

In practice, calculation of the exact amount of GHG emissions associated with an imported product is not feasible with acceptable costs especially for intermediate and final goods. Therefore, rough estimations by determining averages across a sector would be necessary. Moreover, one has to drastically limit opportunities to misstate the carbon content of goods or to declare that only carbon free electricity has been used for their production.[226]

IM1-IM3: The administrative costs vary among the different import CBAM instruments. In case of customs duties (option IM1), these costs fall on importers and the customs authorities of the Member States. In case of an extension of the EU-ETS to imports or of a notional ETS (IM2 and IM3), these costs fall on importers and EU verification bodies. The extension of the EU-ETS to imports (option IM2) will entail higher administrative costs for firms, though, because of the need of active trading to avoid pricing risks.

IM4a-IM4b: When implementing a CCT (options IM4a-IM4b), the administrative burden does not only fall on importers and EU verification bodies, but also on domestic producers.

6.2.6 Minimisation of International Trade Conflict Risks

IM1: Customs duties (option IM1) are a politically delicate instrument that can be interpreted as protectionist measures by trading partners. It is therefore crucial to relate the amounts to be paid to production benchmarks and the allowance prices of the EU-ETS.

IM2: The extension of the EU-ETS to imports (options IM2) could be perceived as a non-tariff barrier to trade because of the additional burden importers must bear by having to participate in the EU-ETS – especially when the imported quantities are low.

IM3: A notional ETS (option IM3) could also be seen as a non-tariff barrier to trade because of the additional burden importers must bear by having to specify the carbon content of their goods and to buy allowances – but probably to a lesser extent than in the case of the extension of the EU-ETS to imports, since in a notional ETS, which does not entail the active trading of allowances, the administrative burden is smaller.

IM4a-IM4b: A CCT (options IM4a-IM4b) would be applied similarly to domestic producers and imports and would be based on consumption – like a VAT. Any third country could establish a similar system, or simply strip off any carbon cost that applies to their producers domestically when exporting to the EU. So, the potential for international trade conflicts should be comparatively small. The fact that a CCT does not apply at the borders reduces the risks of trade conflicts as well.

---

[225] The EU Parliament voted in plenary to maintain the free allocation of allowances, see EU Parliament (2021), Resolution (2020/2043(INI)) of 10 March 2021, A WTO-compatible EU carbon border adjustment mechanism, pt. 12

[226] Id., p. 18.

6.2.7 Minimal Misuse Potential for Protectionism

IM1-IM3: In principle all import CBAM instruments at the border (options IM1-IM3) have a potential to be misused for protectionist purposes because they necessarily apply only to importers. WTO rules seek to inhibit protectionist behaviour by demanding an equal treatment to domestic companies. However, since they are subject to a different legal regulation some differences might be unavoidable. Thus, differences in measurement of CO_2 content of products, the use of averages or benchmarks or the small print of these import CBAM instruments at the border could give room for protectionist rules. However, these possibilities are limited by the need for the overall instrument to be WTO-compliant The most vulnerable to the form of protectionism where importers pay higher prices per tonne of CO_2 is a customs duty (option IM1) since it cannot be linked to the EU-ETS allowance price as closely as the extension of the EU-ETS (option IM2) or a notional ETS (option IM3).

IM4a-IMb: Since a CCT applies the same rules for domestically produced and imported products any unequal treatment would appear openly in the legal text implementing a CCT and would not be tolerated by the WTO.

Table 1: Assessment of Import CBAM Instruments

CBAM Instruments for Imports	Customs Duty IM1	Extension EU-ETS IM2	Notional ETS IM3	CCT IM4a	CCT + EU-ETS IM4b
Competitiveness Protection – Domestic Market * Imports: from Third Countries * Domestic Production:	**(+)** Customs Duty ETS w/o free allowances	**+** ETS ETS w/o free allowances	**+** Notional ETS ETS w/o free allowances	**+** CCT CCT no ETS	**++** CCT CCT+ ETS + free allowances
Environmental Effectiveness	**+**	**+**	**+**	**-**	**++**
Economic Efficiency	**+**	**+**	**+**	**-**	**+**
Consistency	**+**	**o**	**+**	**-**	**+**
Technical and Administrative Feasibility	**o**	**o**	**+**	**o**	**-**
Minimisation of International Trade Conflict Risks	**-**	**o**	**o**	**+**	**+**
Minimal Misuse Potential for Protectionism	**-**	**o**	**o**	**+**	**+**

6.3 Export CBAM Options

Whether competitive disadvantages for EU exporters can be prevented in world markets depends on the way they are exempted from carbon costs. We will discuss the following options for export CBAM instruments: three forms of “export rebates”, namely reimbursement of allowance costs up to a benchmark (option EX1), annual refunds as partial offsets (option EX2) and other export subsidies (option EX3) as well as the option of keeping free EU-ETS allowances for exporters (option EX4).

6.3.1 Protection of Competitiveness

In all cases where an export CBAM only applies up to a benchmark, EU producers that manufacture with GHG emissions above the current benchmark have to decide whether to bear the rising allowance costs for their excess emissions, to invest into abatement measures or to shut down their facility.

EX1: In case of reimbursement of the costs induced by the price of allowance up to benchmark emissions[227] (option EX1), producers that emit close to the benchmark are protected.

EX2: Exporters will only be fully protected from competitive disadvantages if their carbon costs are fully offset up to benchmark emissions. In case of partial offsets[228] all exporters face increasing competitiveness problems, since they cannot pass the remaining carbon costs to their customers in world markets if they are "price takers".

EX3: A restriction of rebates to only the "most efficient installations" could imply the sudden loss of competitiveness of many installations whenever it is not paying to quickly reduce emissions to the benchmark.

EX4: In case EU exporters are stripped off their carbon costs originating from the EU-ETS by the free allocation of all of their allowances up to a benchmark (option EX4), for EU exporters already producing at the current benchmark a level playing field on the world market would be secured as well.[229]

6.3.2 Environmental Effectiveness

EX1-EX3: If exporters receive an "export rebate" in form of a (partial) refund based on the allowance price paid by them (options EX1-EX3), they do not abate even in case of an allowance price higher than abatement costs: While they do not receive a refund when they abate – since in this case they cannot present carbon costs to be refunded – they still have to bear entirely their abatement cost. Consequently, exporters have no incentive to abate. Nevertheless, in all cases in which EU producers are still subject to the EU-ETS, the environmental effectiveness of the EU-ETS is maintained through its cap. However, this is only the case up to the point where allowance prices are so high that all other sectors in the EU-ETS have already decarbonised and only the exporters that receive rebates hold and surrender allowances. The incentives for companies that receive export rebates not to abate ultimately lead to such a "terminal situation" where the ETS mechanism breaks down: Companies will not be willing to ever reduce their GHG emissions irrespective of how high the prices skyrocket. Therefore, the price mechanism will not work as a device to allocate the constantly shrinking amount of allowances and has to be substituted by either a "first-come, first-serve" mechanism or other forms of rationing. Then, all producers that cannot receive enough allowances will finally have to shut down (part of) their production which will be taken over by foreign competitors, thereby causing "carbon leakage". This scenario could be avoided if EU exporters could choose between receiving a rebate for actual allowance costs or receiving a rebate for their abatement costs up to the level of the current ETS price. This reinstalls the incentives for firms to reduce their GHG emissions but must be safeguarded against misrepresentation of abatement costs.

EX4: The free allocation of allowances for exports (option EX4) also preserves the environmental effectiveness of the EU-ETS for exports since for the overall reduction of GHG emissions by the cap it does not matter whether one has to pay for allowances or not. In contrast to options EX1-EX3, incentives to decarbonise are existent in case of allowance prices exceeding abatement costs as long as some companies that do not get free allowances are willing to pay for the free allowances an exporter does not need to use due to own abatement measures. Again, this is the case until a terminal situation

[227] Kolev, G. et. al (2021), Carbon Border Adjustment Mechanism (CBAM), IW-Policy Paper 6/21, p. 3.

[228] Autorités françaises, Feedback to EU Green Deal (carbon border adjustment mechanism), No. F525248 submitted on 20 April 2020; see also subsection 4.1.1.1.

[229] In addition, the option for Member States to grant electricity price compensation would have to be maintained, in order to prevent losses of competitiveness for producers with electricity intensive production technologies.

occurs in which EU exporters with free allowances do not find other companies willing to buy them. Consequently, exporters could not use the missing revenues to finance abatement measures. In this case, the governments could enter as a buyer of last resort.

6.3.3 Economic Efficiency

EX1-EX3: It is inefficient that exporters never abate even if their abatement costs are much lower than those of other companies covered by the EU-ETS. This non-abatement – in case of export rebates (options EX1-EX3) – drives up allowance costs for other sectors. In addition, carbon leakage as a consequence of only partial compensation of – increasing – carbon costs is never efficient.

EX4: In contrast, in case of the free allocation of allowances (option EX4), the efficiency of the EU-ETS is, indeed, a factor in abatement decisions for production also for exporters: Free allowances provide incentives for EU exporters to decarbonise their production whenever the allowance price is higher than the marginal abatement costs since they can sell their allowances and finance with the proceeds the investment in the abatement technology.

6.3.4 Consistency with Climate Obligations and Policy Instruments of the EU

EX1-EX3: There is no incentive to decarbonise for exporters in case of an allowance price higher than abatement costs if the cost of EU-ETS allowances are reimbursed to exporters (options EX1-EX3) since they could not get a refund when they sell their allowances to finance their abatement costs. Although the EU-ETS ceases to provide incentives to decarbonise to exporters the cap still ensure that territorial emissions are limited. However, the EU-ETS ceases to be an efficient instrument to abate territorial emissions.

EX4: In contrast, the free allocation of allowances to exports (option EX4) preserves the functioning of the EU-ETS as effective and efficient instrument to abate territorial emissions since the status of exporters does not change.

6.3.5 Technical and Administrative Feasibility

EX1-EX3: The reimbursement of allowance costs to exporters, partial offsets or restriction of rebates to the “most efficient installations” (options EX1-EX3) all require a breakdown of production into exports and production for the domestic market. The administrative burden includes the calculation of the rebates to be paid and the payment itself but is limited.

EX4: Technical feasibility is not an issue for a measure already in place – as it is the case regarding the free allocation of allowances (option EX4). If they are also kept for non-exporters there will be no change to the status quo. If not, to calculate the share of exports in the overall production of companies is feasible. The administrative burden will only increase if free allowances are restricted to exports.

6.3.6 Minimisation of International Trade Conflict Risks

EX1-EX3: Since no rebate of actual allowance costs (options EX1-EX3) does provide exporters incentives to decarbonise, these options at first sight cannot be justified on environmental grounds and might stir up international trade conflicts and provoke retaliatory measures from EU trading partners. Only when the basic functioning of the cap, which effectively limits and reduces the overall amount of GHG emission in the EU, can be communicated convincingly to the public in other countries – a task yet difficult to fulfil for the European public – this argument might be overcome.

EX4: Through the whole existence of the EU-ETS, free allowances (option EX4) were sometimes questioned by trading partners but never seriously challenged.[230] So, the risk of conflict when free allowances for exports are maintained seems to be low.

6.3.7 Minimal Misuse Potential for Protectionism

EX1-EX3: Export rebates (options EX1-EX3) could be misused for protectionism when the rebate is higher than the carbon cost borne by the EU companies. This possibility is limited by the WTO rule that rebates cannot exceed the "duties or taxes [borne by the like product when destined for domestic consumption] in amounts not in excess of those which have accrued" [Art. 1 ASCM; GATT, Note to Art. XVI GATT]. Since allowance costs can be proven by the receipts of the surrendered allowances a full or partial rebate can be verified not to exceed the costs. A form of manipulation might be to manipulatively set the share of exports in total production too high such that exporters get a net subsidy.

Since restricting export rebates to the most efficient installations (option EX3) benefits only few EU companies and the partial rebate (option EX2) gives only reduced benefits to EU exporters, the full reimbursement of allowance costs (option EX1) is the most vulnerable to accusation of protectionism.

EX4: Free allocation of allowances can be misused for protectionism if a too high number of allowances is allocated to exporters such that they can sell surplus allowances to make a profit. An additional problem arises when after abatement the free allocation of allowances continues and the resulting gain from selling surplus allowances is higher than the increase in running costs through the new production technology.

Table 2: Assessment of Export CBAM Instruments

CBAM Instruments for Exports	Reimbursement of Allowance costs (up to benchmark) EX1	Annual Refund as Partial Rebate EX2	Rebates Linked with Environmental Performance EX3	Free Allowances for Exporters (up to benchmark) EX4
Competitiveness Protection – Exports	+	-	o	+
Environmental Effectiveness	+	+	+	+
Economic Efficiency	-	-	-	+
Consistency	+	+	+	+
Technical and Administrative Feasibility	+	+	+	+
Minimisation of International Trade Conflict Risks	-	-	-	+
Minimal Misuse Potential for Protectionism	o	+	++	-

[230] Felbermayr, G. / Peterson, S. (2020), Economic assessment of carbon leakage and carbon border adjustment, DG External Policies – Briefing, p. 16; ERCST (2020), Border Carbon Adjustments in the EU – Issues and Options, p. 53.

6.3.8 No Export CBAM Instrument

The total renunciation of any export CBAM instrument might reduce the likelihood of retaliatory measures.[231] It would also address the problem of options EX1-EX3 that exporters would cease to have incentives to decarbonise when rebated their carbon costs. The leaked CBAM-Draft-Regulation is in line with this reasoning.[232] It, however, overlooks the magnitude of the problem of carbon leakage for exporters and global GHG mitigation efforts as well as the possible role of free allowances to overcome these problems. But even when the Commission proposal in July does contain some export rebate measures, the scenario of no export CBAM instrument might be the final outcome of the process of implementing a CBAM. This might occur either for political reasons – with misguided arguments that the avoidance of trade conflicts or the pursuit of the environmental objective of involving exporters in decarbonisation efforts can only be secured when the EU renounces to put export CBAM instruments in place, whatever the consequences for competitiveness[233] – or for legal reasons ex-ante[234] or because of later proven incompatibility with WTO rules[235]. However, any CBAM for imports not accompanied by a CBAM instrument for exports increases the competitive disadvantages of EU producers in world markets. This is because the free allocation of allowances has to be ended, but exports are not included in the CBAM and, so, EU exporters are fully subject to the costs of a raising allowance price.[236]

6.4 Interim Conclusions

6.4.1 Import CBAM Options

All import CBAM instruments can protect domestic producers from carbon leakage risks due to import competition. While a notional ETS (IM3) is implementable with comparably less administrative cost, it faces higher risks of provoking trade conflicts, has a higher misuse potential for protectionism and can put domestic producers in a disadvantage through the rough methods to calculate the carbon content of imports than a CCT with the continuation of free allocation of allowances (IM4b). The extension of the EU-ETS (IM2) has similar characteristics as a notional ETS but bears the problem that territorial GHG emissions of the EU would not be limited by the cap of the EU-ETS if domestic producers manage to expand their market share in the EU to the detriment of imports. A similar loss of consistency with climate obligations is implied by a CCT as a substitute for the EU-ETS for the producers of subjected goods (IM4a) since these goods would escape the cap of the EU-ETS, too. Import duties (IM1), however, show the highest risk of retaliation and trade conflicts and are more difficult to adjust to the current EU-ETS allowance price so that carbon leakage protection is not ensured if the duty and the allowance price differ too much in magnitude.

---

[231] Wissenschaftlicher Beirat beim BMWi (2021), Gutachten, p. 24.
[232] CBAM-Draft-Regulation (Leak of 3 June 2021).
[233] Deutsch-Französischer Wirtschaftsrat in: F.A.Z of 10 May 2021, Klimaschutz ohne Kompromisse, Der Volkswirt. Carbon Market Watch (2020), 10 Key Principles for a Carbon Border Adjustment Measure (CBAM), Carbon Market Watch Position paper.
[234] Mehling, M.A. et al. (2019), Designing Border Carbon Adjustments for Enhanced Climate Action, The American Journal of International Law, Vol. 113:3, p. 473.
[235] Kolev, G. et. al (2021), Carbon Border Adjustment Mechanism (CBAM), IW-Policy Paper 6/21, p. 11. See also section 5.
[236] Wissenschaftlicher Beirat beim BMWi (2021), Gutachten, p. 23.

6.4.2 Export CBAM Options

The panorama presents itself differently when assessing CBAM instruments for exporters, though. Here all instruments except the free allowances (i.e. options EX1-EX3) show serious deficiencies or threats: All forms of reimbursement, rebates or other export subsidies suffer from the severe drawback that they do not give incentives for exporters to decarbonise beyond the current benchmark – even when the allowance price in the EU-ETS rises above the level of relevant abatement costs. This is because exporters exposed to carbon leakage risk can neither afford substantial carbon costs nor substantial abatement costs because of export competition. They would have to pay the full abatement costs so they won't abate. To the contrary, they will have no carbon costs when they get a full rebate. When they get only a partial rebate the amount of the resulting carbon cost will decide whether their installation in the EU remains competitive or not. If they keep producing in the EU they will prefer not to costly abate but to pay for the allowances and thus get at least some rebate. In a static world this strategy could protect them from too high carbon costs, but as soon as some firms of their sector start to decarbonise – e.g. because they get some subsidies to pay for the necessary investment – the industry benchmark will be reduced. Then late movers face a situation where they are only compensated for carbon costs up to the new benchmark. Unless also subsidised heavily to change their technology, they would face severe carbon leakage risks. Consequently, this kind of CBAM instruments does not guarantee carbon leakage protection in a dynamic world. This lack of incentive for exporters to decarbonise compromises the efficiency of the EU-ETS. Although export emissions are not released from the cap, their abatement is cut off from emissions trading, that would ensure cost-effective decarbonisation. All alternative measures to the decarbonisation of exports will be less cost-efficient. Moreover, if refunds are only partial, the risk of carbon leakage can increase substantially with rising allowance prices.

Free allowances (option EX4) allow exporters with GHG emissions up to the benchmark to compete on equal footing with foreign firms that do not face carbon costs. In contrast to export rebates (option EX-EX3) they give them efficient incentives to decarbonize as soon as the allowance price exceeds abatement costs. And this incentive holds for all firms – even in the absence of subsidies –, since they can finance their investments through the sale of their free allowances that get obsolete after abatement. No firm is led by economic incentives to get into the late mover's trap because all have the right incentive to abate when the sales price of their allowances starts exceeding abatement costs. Hence, the efficiency through emissions trade is maintained also for exports. Moreover, free allowances are already in place and will probably not be seen as critical by trade partners as direct and newly created export rebates.

The lack of any export CBAM instrument probably will characterise the legislative proposal of the Commission as one is tempted to infer from the leaked CBAM-Draft-Regulation of the Commission.[237] This leaves EU exporters to world markets without any carbon-leakage protection. So, they will get fully exposed to increasing allowance costs. The lack of carbon leakage protection of exporters will counteract the global GHG reduction efforts and cause considerable damage to the EU export industry.

[237] CBAM-Draft-Regulation (Leak of 3 June 2021).

6.4.3 Implications for a CBAM Combined of Import and Export CBAM Instruments

For many commentators on CBAM proposals – be they politicians or scientists – there are basically only two alternatives: The first basic alternative is a combination of CBAM instruments for import with some kind of rebates of carbon costs for exporters which would exempt exporters from the incentives to decarbonise. The second one – seemingly followed by the Commission – is to use only a CBAM instrument for imports and let exporters pay the full price of EU-ETS allowances by phasing-out the free allocation of allowances which leaves incentives to decarbonise for exporters intact – being aware of the risk of the loss of competitiveness for exporters and accepting it.[238] Both have in common that they see no lasting role for the free allocation of allowances. There are however, two ways how the free allocation of EU-ETS allowances can be combined with import CBAM instruments – thereby maintaining incentives for exporters to decarbonize:

- First, the free allocation can be maintained for all EU producers at risk of carbon leakage – having the additional advantage that free allowances lead to a strong protection of exporters against competitiveness risks, maintaining additionally the effective and efficient incentives for both, domestic producers and exporters, through the EU-ETS. This would only be compatible with a CCT (option IM4b) since in case of all import CBAM instruments at the border (options IM1-IM3) the free allocation of allowances would be a double compensation: competitors face a carbon cost related to the EU-ETS allowance price and EU producers are exempt of the carbon cost.

- Second, a solution compatible with all import CBAM instruments at the border (options IM1-IM3) is to grant free allocation of EU-ETS allowances up to a benchmark only to exporters (EX1-EX3). The challenge there is – (a) to avoid creating adverse incentives to increase exports and meeting demand with higher imports, (b) to restrict administrative cost to a minimum and (c) to provide strong protection against fraud. Unfortunately, restricting the free allocation of allowances to exporters could be regarded as a protectionist measure by trade partners.

In principle, all CBAM instruments for exports other than free allowances (options EX1-EX3) can address the competitiveness problem for exporters when choosing import CBAM instruments at the border – as customs duties, extension of EU-ETS to imports or a notional ETS (options IM1-IM3). But none of the export rebates gives incentives for exporters to decarbonise and all might have problems with international acceptance and WTO compliance. Hence, severe political or legal obstacles might hinder the combination of adjustments at the border (options IM1-IM3) with export rebates (options EX1-EX3).

[238] See Wissenschaftlicher Beirat beim BMWi (2021), Gutachten. Deutsch-Französischer Wirtschaftsrat in: F.A.Z of 10 May 2021, Klimaschutz ohne Kompromisse; Carbon Market Watch (2020), 10 Key Principles for a Carbon Border Adjustment Measure (CBAM), Carbon Market Watch Position Paper.

7 Conclusion and Recommendations

7.1 Background: Carbon Leakage and Existing Carbon-Leakage-Protection

Rising costs due to EU climate policy represent a competitive disadvantage for EU companies insofar as their competitors in third countries do not have to bear comparable costs. The resulting distortion of competition and weakening of the international competitiveness of EU industries can induce carbon leakage. To counteract this, companies in sectors covered by the EU-ETS and deemed to be at risk of carbon leakage currently can be allocated allowances for free.[239] The number of free allowances a company can receive for its installations is proportional, *inter alia*, to its historic production levels, a "carbon leakage factor" depending on a sector's carbon leakage risk, and a product specific "benchmark" (based on the 10% most efficient installations).

7.2 CBAM as Alternative to Existing Carbon-Leakage Measures

The Commission plans to introduce a carbon border adjustment mechanism (CBAM) that is supposed to create a level playing field in international trade by diminishing – or "adjusting" – the price difference between European products and comparable products imported from third countries with less stringent and costly climate policies. The Commission considers the introduction of a CBAM as an "alternative" to existing carbon leakage measures and strives for their eventual phase-out: "A Carbon Border Adjustment Measure (CBAM) is an alternative measure to mitigate carbon leakage risks. Sectors and subsectors covered by that measure should therefore not receive free allocation."[240] However, the unilateral introduction of any of these CBAM options may have the effect that in the end the various objectives pursued by the envisaged CBAM will not only be not achieved but, to the contrary, actually be undermined.

The key objective of a CBAM is contributing to the overall reduction of global GHG emission by preventing the shift of carbon-intensive production from the EU to third countries, which would hurt the EU economy and increase overall global GHG emissions ("carbon leakage"). The Commission's initial Inception Impact Assessment (March 2020)[241] contains four different options to protect import competing sectors in the EU but not export sectors. According to the Commission, all of these options should also aim at reducing the overall GHG emissions caused by EU producers and consumers ("carbon footprint") with regard to the GHG emissions associated with the production of imported products. Furthermore, a CBAM shall enable EU producers to pass on carbon costs to the product price to be ultimately paid by the final consumer ("pass-through").

7.2.1 Import CBAM Options

To protect EU companies that produce for the EU market ("domestic producers") from unfair competition by imports that do not face carbon costs ("import competition") the EU mentions four different import CBAM instruments:

---

[239] EU-ETS Directive 2003/87/EC, Art. 10(1) and 10a; see Bonn, M. / Reichert, G. (2018), Climate Protection By Way of the EU-ETS, cep**Input** 03/2018, section 2.5; see above section 3.1.1.2.

[240] EU Commission, EU-ETS-Draft-Directive (Leak of 30 June 2021), p. 17. See also recital 25 and amended Art. 10a(1)(i): "No free allocation shall be given to installations in sectors or subsectors to the extent that they are covered by other measures to address the risk of carbon leakage as established by Regulation xxx [reference to CBAM]."

[241] EU Commission (2020), Inception Impact Assessment Ares(2020)1350037 of 4 March 2020; see also Englisch, J. (2020), A Carbon Border Adjustment Mechanism for the EU ETS, Kluwer International Tax Blog.

- **Customs Duty** (**IM1**): Importers have to pay at the border a carbon duty linked to the EU-ETS allowance price and the carbon content of the imported products.

- **Extension of the EU-ETS to imports** (**IM2**): Importers or foreign producers are required to purchase emission allowances of the EU-ETS.

- **"Notional ETS"** (**IM3**): Importers or foreign producers are required to purchase CBAM allowances whose price is linked to the current EU-ETS allowance price.

- **Carbon Consumption Tax "CCT"** (**IM4**): Domestic producers and importers face a CCT which tax rate is linked to the EU-ETS allowance price. There are two options:
  - CCT as alternative to EU-ETS (**IM4a**): EU producers subject to a CCT are not required to hold allowances of the EU-ETS.
  - CCT with free allowances (**IM4b**): EU producers subject to a CCT are required to hold allowances of the EU-ETS but are allocated full free allowances up to benchmark emissions.

According to its preliminary CBAM-Draft-Regulation leaked on 3 June 2021,[242] the Commission plans to propose in July 2021 the establishment of an import CBAM instrument in the form of a "notional ETS" mirroring the carbon price of EU-ETS allowances.[243]

7.2.2 Export CBAM Options

Pursuant to its preliminary CBAM-Draft-Regulation leaked on 3 June 2021,[244] the Commission does not plan to introduce an export CBAM instrument that would compensate EU exporters for competitive disadvantages on the world markets due to higher carbon costs in the EU("export competition"), although several options could be envisaged:

- **Reimbursement of allowance costs** (**EX1**): Exporting firms are reimbursed the cost of surrendered EU-ETS allowances corresponding to their export share in total production.

- **Annual refund as partial offset** (**EX2**): Partial offsets to the allowance costs are paid as annual refunds to exporters proportional to their export share in total production.

- **Export rebates linked to environmental performance** (**EX3**): Export rebates are granted only to the "most efficient installations" (benchmarks).

- **Free EU-ETS allowances for exports** (**EX4**): EU firms receive full free allowances up to benchmark emissions for their shares of their production that are exported. In this respect, a "technically challenging"[245] redesign of the current EU-ETS system of free allocation – which does not take into account the final destination of products at the time of production – would be necessary.

[242] Available at Euractiv of 3 June 2021, LEAK: EU's carbon border tariff to target steel, cement, power.
[243] See above subsection 3.3.
[244] Available at Euractiv of 3 June 2021, LEAK: EU's carbon border tariff to target steel, cement, power.
[245] Mehling, A. et al. (2019), Border Carbon Adjustments, p. 471.

7.3 Conclusions

7.3.1 Conclusions on WTO Compatibility

7.3.1.1 Import CBAM Options

While the introduction of an import CBAM in the form of import duties (IM1) or the extension of the EU-ETS (IM2) to products imported on the EU market would not be WTO compatible, the application of a carbon price on imports mirroring the price of allowances of the EU-ETS either by creating a notional ETS (IM3) or in the form of a carbon consumption tax CCT (IM4a and IM4b) could qualify as an adjustable "tax occulte". In order to not breach the WTO requirement for non-discrimination pursuant to the national-treatment principle, however, both potential import CBAM options must not be "in excess" to those carbon costs like domestic products manufactured in the EU are subject to. Apart from practical challenges to measure, determine and compare the energy consumption and GHG emissions associated with imported and domestic like products which for itself pose a risk for IM3, IM4a and IM4b to be "in excess", the introduction of such import CBAMs would both require either the reduction of a similar value of allowances freely allocated for exported EU products or the proportional reduction of the import CBAM. Since the current system of free allocation of allowances within the EU-ETS does not differentiate between free allowances for EU products to be exported or to be consumed domestically within the EU, this would require a fundamental change of the current provisions in this respect in order to not risk a breach of WTO law. Given this risk, the Commission envisages to gradually phase-out free allowances altogether without introducing an export CBAM instrument of any kind.

7.3.1.2 Export CBAM Options

With regard to export CBAM options such as the full refund of carbon costs in the form of EU-ETS allowance price (EX1), only a partial refund (EX2), other export rebates (EX3) or the free allocation of allowances within the EU-ETS only to exported EU products (EX4), WTO law requires that such exemptions or remissions from costs borne by like products when destined for domestic consumption within the EU must not be "in excess of those which have accrued" not to be qualified as a prohibited export subsidy. To avoid the risk of breaching WTO law, this would, again, require either the reduction of a similar value of allowances freely allocated for exported EU products or the proportional reduction of the import CBAM. However, even if this requirement of "not in excess" for the introduction of an export CBAM can be fulfilled, all options for an export CBAM could constitute "actionable export subsidies" with "adverse effects" on other WTO members which – while not prohibited from the outset – other WTO members could object. Whether an export CBAM qualifies as an "actionable export subsidy" depends on the specific circumstances and can only be determined on a case-by-case basis.

7.3.1.3 Justification, Art. XX GATT

If the specific design of an import or export CBAM should not be entirely compliant with basic WTO requirements, such breaches may be justified as "general exceptions" if certain conditions pursuant to Art. XX GATT are strictly met. Most importantly, the EU would have to demonstrate that the introduction of an import or export CBAM is either necessary or at least primarily aimed at reducing the risk of carbon leakage to reduce the overall global GHG emissions. With regard to the "necessity" for introducing import or export CBAM, there is a strong case that keeping the current system of free allocation of allowances instead is a "less trade restrictive measure". Furthermore, an import or export CBAM must not constitute a means of arbitrary or unjustifiable discrimination between countries with same conditions or a disguised restriction on international trade. To proof that this is the case, the EU must

accept comparable measures of third countries for the reduction of GHG emissions and also undertake serious efforts to cooperate with other WTO members before unilaterally introducing an import or export CBAM.

7.3.1.4 Significant Risk of WTO Incompatibility

In sum, while certain options for import CBAMs (IM3, IM4a and IM4b) and export CBAMs (EX1-EX4) can principally be designed to be compliant with the basic WTO requirements especially of non-discrimination, significant risks depending on their actual design and application remain. In contrast, the current system of free allocation of allowances within the EU-ETS is clearly a "less trade-restrictive" "alternative measure" against carbon leakage. Consequently, keeping the current system of free allowance without introducing an import CBAM – with or without combining it with an export CBAM – would be less at risk of being found to be incompatible with WTO law.

7.3.2 Conclusions on Economic, Environmental, Technical and Political Implications

The various CBAM options under consideration show partly no appreciable variances and partly significant differences with regard to the following criteria:

(1) Protection of Competitiveness: Is the CBAM option able to protect the competitiveness of EU producers against their competitors that do not bear comparable carbon costs in their home country?

(2) Environmental Effectiveness: Does the CBAM option preserve the effectiveness of the EU-ETS to reduce GHG emissions to avoid carbon leakage so that overall no additional GHGs are emitted globally?

(3) Economic Efficiency: Is the reduction of GHG emissions induced by the CBAM option cost efficient?

(4) Consistency with Climate Obligations and Policy Instruments of the EU: Is the functioning of the EU-ETS to control the "territorial emissions" of GHGs within the EU preserved by the CBAM option?

(5) Technical and Administrative Feasibility: Does the CBAM option avoid complex information gathering and calculations and minimise administrative costs?

(6) Minimisation of International Trade Conflict Risks: Does the CBAM option avoid measures that might stir up international trade conflicts and provoke retaliatory measures from EU trading partners?

(7) Minimum Misuse Potential for Protectionism: Does the instrument offer little scope for its potential misuse for protectionist purposes?

7.3.2.1 Import CBAM Options

Protection of Competitiveness and Environmental Effectiveness: Due to the limitations of measuring and incorporating the exact amount of GHG emissions associated with a product, all import CBAM options (IM1-IM4) – including the continuation of the free allocation of allowances under a CCT – are only imperfect attempts to create a level playing field regarding carbon costs between producers from the EU and third countries. Hence, also their environmental effectiveness is per se limited. Since with a CCT (IM4a and IM4b) domestic producers bear the costs of the CCT in the same way as their foreign competitors importing to the EU problems of measurement apply to both similarly and thus do not affect domestic producers adversely. That said, all options can in principle protect domestic producers

from carbon leakage risks due to import competition. However, import duties (IM1) are more difficult to adjust to the current EU-ETS allowance price so that carbon leakage protection is not ensured if the duty and the allowance price differ too much in magnitude.

Economic Efficiency: As far as domestic production is still subject to the EU-ETS (IM1-IM3 and IM4b), its GHG emissions will still be reduced efficiently by the possibility to trade allowances in the EU-ETS. The pass-through of carbon costs to consumers via all import CBAM instruments is efficiency enhancing. Since a CCT is product-based and only average or benchmark emissions can be attributed to goods, the reduction of GHG emissions in domestic production through a CCT alone – exempting the subjected products from the EU-ETS (option IM4A) – is not as efficient as through the EU-ETS.

Consistency with Climate Obligations and Policy Instruments of the EU: Contrary to the opinion of many analysts[246] all import CBAM instruments at the border (IM1-IM3) leave the basic functioning of the EU-ETS as principal instrument for the abatement of territorial GHG emissions of EU industry untouched: Firstly, the cap for the sum of territorial emissions is still binding. Secondly, the continued trade with allowances leads to the efficient reduction of GHG emissions. The extension of the EU-ETS (IM2) bears the problem that territorial GHG emissions of the EU will not be limited by the cap of the EU-ETS if domestic EU producers manage to expand their market share in the EU to the detriment of imports. A similar loss of consistency with climate obligations is implied by a CCT as a substitute for the EU-ETS for the producers of subjected goods (IM4a) since these goods would escape the cap of the EU-ETS, too.

Administrative Feasibility, Risk of Trade Conflict and Protectionism: The extension of the EU-ETS (IM2) and a notional ETS (IM3) are implementable with comparably less administrative costs than a CCT with the continuation of free allocation of allowances (IM4b), but face higher risks of provoking trade conflicts by having a higher misuse potential for protectionism. This is because they necessarily apply only to importers, however a CCT applies the same rules for domestically produced and imported products and any unequal treatment would appear openly in the legal text implementing a CCT and would not be tolerated by the WTO. Moreover, options IM2 and IM3 can put domestic EU producers at disadvantage through the rough methods to calculate the carbon content of imports compared to a CCT with the continuation of free allocation of allowances (IM4b). Import duties (IM1), however, show the highest risk of retaliation and trade conflicts; furthermore, they have a high misuse potential for protectionism.

Conclusion: Only a notional ETS (IM3) or a CCT with free allowances (IM4a) should be considered as import CBAM instruments since the other options limit the working of the EU-ETS (IM2 and IM4a) or strongly risk stirring up trade conflicts without ensuring sufficient carbon leakage protection for domestic producers (IM1).

[246] See above subsection 3.1.2.

7.3.2.2 Export CBAM Options

Misconceptions of the Effect of Export CBAM Options on Incentives to Decarbonize:

Reimbursement (EX1) or partial refunds (EX2) of EU-ETS allowance costs as well as export rebates linked to the "most efficient installations" (EX3) suffer from the severe drawback that they do not give incentives for exporters to decarbonise – even when the allowance price in the EU-ETS rises above the level of relevant abatement costs. In case of full reimbursement (EX1) all companies will face a choice between costly abatement or costless benchmark emissions and thus prefer the rebate. However, increasing the carbon cost by granting only partial rebates does not provide incentives to abate. In the cases of partial refunds (EX2) and rebates only to the "most efficient installations" (EX3), companies left with considerable carbon costs when not getting full rebates will face a considerable loss of competitiveness and therefore might stop producing in the EU; as a result carbon leakage occurs. What does give incentives to decarbonize is the free allocation of allowances. Recipients of free allowances (EX4) will sell their allowances as soon as the allowance price reaches abatement costs and finance their abatement with the proceeds of this sale.

The effect on abatement of free allowances is in stark contrast to the erroneous opinion of the Commission, many politicians and environmental NGOs. They mistakenly assume that the free allocation of EU-ETS allowances would eliminate any incentives for abatement efforts in sectors difficult to decarbonize and therefore demand the phase-out of free allocation. However, abatement costs in these sectors are much higher than current EU-ETS prices. Consequently, companies prefer to surrender allowances instead of investing in the abatement of GHG emissions. This holds true irrespective of whether allowances are freely allocated or auctioned. Another misunderstanding is related to the fact that in sectors not at risk of carbon leakage the EU-ETS allowance price increases the price of a good faced by the consumer ("pass-through") while in sectors at risk of carbon leakage that receive free allowances there is no such "pass-through". It is wrong to claim that the free allocation is responsible for the missing "pass-through" – that is thereby reducing "the impact of carbon pricing."[247] With a uniform price for a good on the world market it is international competition(!) that forces companies as "price takers" to sell their products at the world market price and prevents them from passing on the allowance costs to their customers – not free allowances. The role of free allowances is to keep the companies in the world market when carbon costs increase.

Protection of Competitiveness and Environmental Effectiveness: Full reimbursement of allowance costs up to a benchmark (EX1)[248] can prevent carbon leakage as can the free allocation of allowances (EX4) while rebates to "most efficient installations" (EX3) and partial rebates (EX2) cannot.

Economic efficiency: Full export rebates EX1 are not efficient since they induce companies not to abate even if the abatement costs are lower than the EU-ETS allowance price. Export rebates that do not prevent carbon leakage (EX2 and EX3) are not efficient since they do not fulfil their objective. The free allocation of allowances (EX4) preserves the efficiency of the EU-ETS.

[247] L'Heudé, W. et al. (2021), A Carbon Border Adjustment Mechanism for the European Union, Trésor-Economics 280, p. 7.

[248] The current EU-ETS-Directive specifies sector specific benchmarks up to which companies can receive allowances for free. They are oriented at the 10% most efficient installations in the sector and product based, see EU-ETS Directive 2003/87/EG, Art. 10a.

Consistency with Climate Obligations and Policy Instruments of the EU: Although the EU-ETS ceases to provide incentives to decarbonise to exporters when they get export rebates (EX1-EX3) the cap still ensures that territorial emissions are limited. However, the EU-ETS ceases to be an efficient instrument to abate territorial emissions. In contrast, the free allocation of allowances to exports (EX4) preserves the functioning of the EU-ETS as effective and efficient instrument to abate territorial emissions since the status of exporters does not change.

Administrative Feasibility: Export rebates (EX1-EX3) all require a breakdown of production into exports and production for the domestic market. The administrative burden includes the calculation of the rebates to be paid and the payment itself. If the free allocation of allowances were kept for all EU firms, including non-exporters, there would be no change to the status quo. Under a CBAM that restricts free allowances to exports (EX4) the administrative burden increases only slightly, because calculating the share of exports in the overall production of companies is feasible.

Risk of Trade Conflict and Protectionism: Since export rebates (EX1-EX3) do not provide exporters with incentives to decarbonise, they cannot at first sight be justified on environmental grounds and might stir up international trade conflicts and provoke retaliatory measures from EU trading partners. Only when the basic functioning of the cap, which effectively limits and reduces the overall amount of GHG emission in the EU, can be communicated convincingly to the public in other countries – a task yet difficult to fulfil for the European public – this argument might be overcome. In contrast, since the introduction of the EU-ETS in 2005, free allocation of allowances (EX4) has never been seriously challenged.[249] So, the risk of conflict when free allowances for exports are maintained seems to be low.

Notwithstanding the importance of carbon leakage protection of exports, the leaked draft of the proposal for a CBAM Regulation of 3 June 2021 indicates that the Commission renounces CBAM measures for the protection of EU exporters and, at the same time, plans to phase-out the current free allocation. This will, however, both fail to attain its environmental objective and severely damage the EU economy: The lack of carbon leakage protection of exporters will lead to emissions elsewhere while the corresponding allowances that are freed by the leak permits other EU companies to emit an equal amount. This counteracts the global GHG reduction efforts while causing considerable damage to the EU export industry.

The loss of international competitiveness might even become an unintended consequence of a CBAM proposal which – in contrast to the leaked CBAM-Draft-Regulation – originally entails also some sort of export rebates. This is because alternative solutions to protect EU exporters – “export rebates” or “free allowances only for exporters” entail some legal risks (WTO) and political risk (trade conflicts). Overall, a considerable risk remains that in the process of introducing the CBAM the export CBAM instrument will be finally given up – either in the legislative process to avoid severe trade conflicts and retaliatory measures or due to political pressure to “make exporters pay as well” for their GHG emissions, or ex-post because of a ruling by the WTO dispute settlement body prohibiting their use.

[249] Felbermayr, G. / Peterson, S. (2020), Economic assessment of carbon leakage and carbon border adjustment, DG External Policies – Briefing, p. 16; ERCST (2020), Border Carbon Adjustments in the EU – Issues and Options, p. 53.

7.4 Recommendations

First-best solution: Global Emissions Trading System (ETS)

The first-best solution to avoid the problem of carbon-leakage is a global uniform carbon price. Then companies face the same carbon costs independently from where they produce and hence there are no competitive disadvantages through carbon pricing. A uniform carbon price can best be established by a global ETS or the worldwide linkage of different ETS.[250] But negotiations on the overall cap and the distribution of allowances among countries are a very difficult task. A uniform carbon tax is also very difficult to establish, and it is currently unlikely that in this respect progress could be made in international negotiations within the foreseeable future.

Second-best solution: ETS with developed and developing countries

A second-best solution would be to establish a form of climate club of the developed and developing countries with high emissions to establish a joint ETS that leads to a common carbon price among the member countries, possibly protected from carbon leakage to third countries by an import and export CBAM. This also reduces the risk of indirect carbon leakage through lower energy prices due to stronger abatement efforts of the main emitters.

The proposal of the Wissenschaftlicher Beirat beim BMWi (Scientific Council to the German Ministry for Economics)[251] to introduce a common minimum carbon price is inadequate in this context: Carbon leakage would occur among club members when the EU-ETS allowance price considerably raises above the minimum price. But this is very likely when considering the price dynamics of the EU-ETS. If a joint ETS or a common carbon price cannot be established, a VAT-like international CCT system is preferable to the proposal of the Wissenschaftlicher Beirat beim BMWi since it allows carbon-leakage protection for countries with different carbon prices.

Third-best solution: Extension of free allocation of EU-ETS allowances

The unilateral introduction of a notional ETS as proposed by the Commission risks to be non-compliant with WTO law. Furthermore, in the case of the Commissions plans, it severely hurts the EU export industry by phasing-out the free allocation of allowances without replacement by any export CBAM. This leads to carbon leakage, resulting in the overall increase of global GHG emissions. For these reasons, the EU should withdraw its plan of introducing a CBAM altogether.

Instead, as a third-best solution, the EU should extend the free allocation of EU-ETS allowances to all companies with carbon leakage risk up to a benchmark by reversing the gradual meltdown of the amount of free allowances foreseen in the current legislation. This free allocation of allowances is tolerated up to now and therefore, bears the least risk of trade conflicts. Its full preservation would give sufficient carbon leakage protection also in view of strongly rising allowance prices.

[250] Bonn, M. / Menner, M. / Voßwinkel, J. (2017), 2017, Globalisierung des Klimaschutzes – Wege zu einer weltweiten Angleichung der CO_2-Bepreisung, cep**Input** 07/2017.
[251] Wissenschaftlicher Beirat beim BMWi (2021), Gutachten.

Red Lines for a Unilateral CBAM

However, if the EU is determined to implement a CBAM in order to achieve the additional goals of a "pass-through" of carbon costs to consumers and to reduce the carbon footprint by imposing a carbon price to imports, its design must be chosen carefully. Prerequisites are: It must prevent carbon leakage as much as possible. It must protect not only import competitors but also exporters in the EU from losing their competitiveness due to the EU climate protection regulation. And it must be compatible with WTO law and should avoid trade conflicts.

- The least harmful strategy is to introduce a CCT that indirectly passes on to consumers the EU-ETS allowance price as its tax rate is linked to the allowance price of the previous year. As discussed above, the free allocation of EU-ETS allowances is to be maintained and improved for all EU producers at risk of carbon leakage. As importers and EU producers face the same tax rate a CCT is likely to be WTO compliant and should be less vulnerable to trade conflicts.

- A notional ETS – as foreseen by the preliminary CBAM-Draft-Regulation leaked on 3 June 2021 – may be an alternative. However, it must be in any event accompanied by the free allocation of EU-ETS allowances for the export share of EU companies. If constructed adequately by exactly mirroring the price for EU-ETS allowances, the notional ETS could be also WTO-compatible, but the free allocation of EU-ETS allowances only to exporters might be problematic and provoke new trade conflicts.

- Both paths – if eventually accepted internationally – can ensure a level playing field not only in the EU market but also in the world market and prevent carbon leakage. Moreover, in both settings the EU-ETS continues as an effective and efficient instrument to reduce territorial GHG emissions of the EU.

- But if the carbon leakage protection of EU companies and especially exporters is finally at risk, the Commission should reconsider its CBAM project.

- Therefore, an open consultation process with all stakeholders and trading partners involved during the entire legislative process is crucial to avoid harmful design elements and open trade conflicts. Not least for environmental reasons of carbon leakage, the debate on the design of the CBAM should mainly centre around the question of how to best incorporate the protection of EU domestic exporters into a CBAM. The protection of this important part of the EU's industrial base must be compliant with WTO rules and acceptable for trade partners.

Centres for European Policy Network
FREIBURG | BERLIN | PARIS | ROMA

Authors:

Marion Jousseaume, LL.M. (Passau)
Policy Analyst
jousseaume@cep.eu

Centre de Politique Européenne PARIS
18, rue Balard | F-75015 Paris
Tel. + 33 1 45 54 91 55

Dr. Martin Menner
Policy Analyst
menner@cep.eu

Dr. Götz Reichert, LL.M. (GWU)
Head of the Department on Energy | Environment | Climate | Transport
reichert@cep.eu

Centrum für Europäische Politik FREIBURG | BERLIN
Kaiser-Joseph-Straße 266 | D-79098 Freiburg
Schiffbauerdamm 40 Raum 4315 | D-10117 Berlin
Tel. + 49 761 38693-0

The **Centrum für Europäische Politik** FREIBURG | BERLIN, the **Centre de Politique Européenne** PARIS, and the **Centro Politiche Europee** ROMA form the **Centres for European Policy Network** FREIBURG | BERLIN | PARIS | ROMA.

The cep institutes are specialised in the analysis and evaluation of European Integration Policy. They publish their scientific work independently of any vested interest, in favour of a European Union that respects the Rule of Law and the principles of the social market economy.