A proposal for the design of an European Carbon Border Adjustment Mechanism (‘CBAM’)

Luis Garicano, Member of the European Parliament and VP of Renew Europe

Carbon Border Adjustment Mechanism: greening the EU trade?
Bruegel event, February 4th 2021
Introduction

• **Aim of the talk:** discuss and explain the European Parliament opinions on the CBAM, in particular the one approved by the ECON Committee on December 10th, and the one being voted today by the ENVI Committee, the leading committee for this file.

• **The presentation will cover the following points:**
  - Why do we need a CBAM?
  - Key proposed design elements of the CBAM
  - Next legislative steps in relation to the CBAM
  - Discussion with panellist and Q&A
Why do we need a CBAM?

In the absence of a global price for carbon, the EU’s unilateral climate action pricing carbon emissions, even if it has led to a reduction of EU GDG emissions, has been offset by increasing imports from countries that have a more carbon-intensive production process ("carbon leakage").

Greenhouse gas (GHG) emissions and net imports evolution

Source: Our World in Data, Peters et al. (2012) and the Global Carbon Project (2018), author analysis
Why do we need a CBAM? (II)

By ensuring that the price of imports reflects their carbon content, the CBAM will reduce the risk of carbon leakage, while providing incentives to our trade partners to start pricing carbon

• In the absence of a CBAM, producers from other regions of the world that are not subject to a carbon price will be increasingly advantaged relative to EU producers. This situation is not sustainable:
  - On the one hand, the planet does not improve, because the Earth does not care where the CO₂ is generated
  - On the other, it creates perverse incentives to move production outside of Europe (where regulation of carbon intensive production is less ambitious or inexistant, hence potentially leading to even more emissions)

• The CBAM would help assure that the EU’s green objectives are not undermined by the relocation of production or by increased imports from countries with less ambitious climate policies
  - The CBAM is required to support the EU’s unilateral decarbonisation efforts
  - It will also create the incentives to our trading partners to start pricing carbon and/or shift towards greener energy sources
  - Hence helping reduce global greenhouse gas emissions
Towards a Climate Club

As proposed by William Nordhaus during his Nobel prize speech, the development of climate clubs can help solve the free riding problem. The CBAM is the key element to develop such “climate clubs”

- **Members of the Climate Club**
  - Have carbon pricing schemes
  - Commit to carbon neutrality in the medium term
  - Invest in climate abatement

- **Non members**
  - Are penalized through “penalty tariffs” on export to the club region
  - Such “penalty tariffs” are a CBAM

Through the introduction of these properly designed CBAM, one can envision an end state in which the number of members of such club is sufficiently large, and the tariffs sufficiently high, that all have an incentive to contribute to carbon abatement and “join the club”
Key proposed design elements of the CBAM

- The European Parliament position concerning the CBAM focuses on the following design parameters:
  - The aim of the mechanism
  - The policy instrument that is best suited
  - The scope/coverage the CBAM should have
  - The assessment method of the carbon content of imports based on feasibility and accuracy considerations
  - The articulation with existing decarbonisation measures at the EU level
  - The necessary WTO-compatibility

- Let’s go through each of these points
Aim: it needs to have a clear environmental objective

The aim of a carbon adjustment mechanism needs to be environmental (not fiscal, nor competitiveness)

• The environmental aim is key to comply with World Trade Organization (WTO) rules and minimize the risk of trade retaliation measures

• Design elements to take into consideration the environmental aim:

    - Mirror the price being charged to EU producers to ensure **fairness** and **non-discrimination**
    - Avoid importers pay **twice** for their carbon content to incentivize the development of new carbon pricing schemes in third countries
    - Allow importers to demonstrate their real carbon emissions level to incentivize decarbonisation investments in third countries
**Policy instrument: it should be based on the EU ETS**

Between the three main policy options available, the EU Parliament recommends designing the CBAM as an instrument based on the EU ETS, in order to mirror the carbon costs paid by EU producers.

<table>
<thead>
<tr>
<th>(i) Excise duty/tax on consumption</th>
<th>(iii) Instrument based on the EU ETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>✗ It would not fully address the risk of carbon leakage</td>
<td>✓ It facilitates WTO-compatibility as a “mirror” system of the EU ETS, hence avoiding discrimination between domestic producers and foreign importers;</td>
</tr>
<tr>
<td>✗ Technically challenging given the complexity to trace carbon in global value chains (if design in a similar way as the VAT);</td>
<td>✓ It ensures automatic price adjustment at the same level as domestic producers are paying;</td>
</tr>
<tr>
<td>✗ Lack of public and political support;</td>
<td>✓ It avoids an additional burden on EU producers, who already face de-carbonization policies through the ETS;</td>
</tr>
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<table>
<thead>
<tr>
<th>(ii) Customs duty/tax on imports</th>
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<tbody>
<tr>
<td>✗ Fails to ensure WTO compatibility given its fixed nature in relation to the evolving price of the EU ETS;</td>
</tr>
<tr>
<td>✗ Could be perceived as a protectionist measure by trade partners;</td>
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Scope: it should cover the same products as the EU ETS

While it might seem intuitive or preferable to “start small”, we believe that this might be a very dangerous position that might backfire in some sectors

- Potential distortions that might arise if the CBAM does not cover all the same sectors as the EU ETS
  - **Distortions between “substitute products” in the domestic market**
    - If only a subset of sectors is covered, this might trigger significant substitution effects and competition distortions between sectors
  - **Distortions between raw materials and intermediate or end-products**:
    - Might exacerbate the risk of carbon leakage in the production of raw materials

- The CBAM should therefore cover all the products embedding materials covered by the EU ETS
  - Although it might prove challenging, we believe there is a feasible way to implement such a broad scope (through the weight of raw materials in imported products)
  - If it were to be too challenging to cover all basic materials covered by the EU ETS as early as 2023, then sectors deemed to be at highest risk of carbon leakage might be prioritised
Assessment method: trade-off between accuracy and feasibility

Obtaining the actual level of carbon emissions for every imported product is unfeasible. This is why a feasible approximation is needed. The proposal is to measure the carbon content of imports using the weight of the raw material embedded in the products and multiplying them by a default carbon intensity values.

\[
\text{Carbon content of a product} = \text{Weight of basic materials} \times \text{Carbon intensity value per product}
\]

- **Good approximation** (more than 90% of the emissions are embedded in the basic materials)
- **Feasible** (only traceable elements are considered)
- **Provides undisputable evidence** for the determination of the tax base

- **Differentiated carbon intensity values** (by country)
  - Better approximation, however, issues about the reliability of the data may arise and higher administrative burden (tracing needs)

- **Uniform default values** (same for all countries)
  - Technically and administratively feasible

- In parallel, importers should be allowed to demonstrate if their specific production process is more carbon efficient
Articulation with existing EU ETS – Phase out of free allowances

The implementation of the CBAM offers, from an environmental and fiscal perspective, the opportunity to abandon the free allocation of allowances. A transition period should be considered for the progressive removal of free allowances.

<table>
<thead>
<tr>
<th>What are “free allowances” ?</th>
<th>The CBAM and free allowances could coexist</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Free allocation of allowances represent the current mechanism to protect sectors at highest risk of carbon leakage (sectors with large level of emissions and highly exposed to international trade)</td>
<td>CBAM and free allowances could coexist during the transition period without representing double compensation. The level of free allowances would be deducted from the CBAM</td>
</tr>
<tr>
<td>• In practice, the level of free allowances is set by the level of emissions of the 10% most efficient producers. Any emissions above this “10% most efficient benchmark” has to be paid at the market price.</td>
<td></td>
</tr>
</tbody>
</table>

CBAM and free allowances could coexist during the transition period without representing double compensation. The level of free allowances would be deducted from the CBAM.

### CBAM and free allowances could coexist during the transition period without representing double compensation. The level of free allowances would be deducted from the CBAM
Articulation with existing EU ETS – Introduction of partial export rebates

We propose to couple the removal of free allowances with the introduction of partial export rebates in order to address the risk of carbon leakage in export-oriented sectors, while keeping strong decarbonisation incentives.

Rationale for the introduction of partial export rebates

- **The CBAM ensures a level playing field in the domestic EU market.** However, the position of EU producers will be exacerbated in foreign markets as free allowances are removed.

- **The phase out of free allowances should be accompanied by the introduction of export rebates,** in order to address the risk of carbon leakage in export-oriented sectors.
During the transition period free allowances would be phased out and partial export rebates would be “symmetrically” introduced (dates are just for reference – non-binding – just an example)

**Domestic EU Market** -> progressive phase out of free allowances as CBAM ensures level playing field

**EU Exports** -> progressive introduction of partial export rebates (up to the current level of free allowances)
WTO compatibility

We believe our proposal complies with the 1994 General Agreement on Tariffs and Trade ("GATT") and its two main basic principles

1. **Non-discrimination between imported and domestic goods** (art. III.2 GATT)
   - The extension of the EU ETS ensures that the proposed CBAM applies to “like” domestic products;
   - Both domestic producers and importers would pay exactly the same carbon price;
   - The transition period for ending the allocation of free allowances does not entail a discriminatory treatment, as those free allowances would also be deducted from CBAM;
   - Importers have the opportunity to demonstrate the specific carbon content of their imports in order to avoid a discriminatory treatment in the assessment process (Gasoline case, WTO 1996);

2. **The Most-Favoured Nation clause** (art. I.1 GATT)
   - The method to determine the carbon content is the same for all imports (i.e. weight of each basic material in the final product multiplied by a carbon intensity value);
   - Allowing importers to deduce the carbon price already paid in their home country is not discriminatory, given that the same conditions do not prevail in third countries.
Should some of the proposed design features of the CBAM be challenged, we can resort to Article XX

Art XX: “Nothing in the GATT shall prevent the adoption of measures”:

• b) “necessary to protect human, animal or plant life or health”
• g) “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 also requires that measures are not applied in a manner that would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade

✓ Importers can prove that they perform better than the default values => incentives to reduce their emissions;
✓ Importers do not pay twice for the carbon content of their product (thus, not a disguised protection of EU industries);
✓ The proposed design implements the phasing out of free allowances;
✓ Export rebates, as designed in this proposal, will help prevent carbon leakage while at the same time provide incentives to EU producers to be more carbon efficient
✓ A significant % of the revenues will be devoted to climate measures through the EU budget
3. Next legislative steps in relation to the CBAM
Next legislative steps in relation to the CBAM

- **February 4th 2021**, the ENVI Committee, the leading committee for this file, will proceed with their Opinion vote.

- **In February / March 2021**, a Plenary vote about the CBAM is expected.

- **Mid-2021**: the Commission is expected to table a specific proposal for a CBAM, taking into account the results of the ongoing impact assessment, and the recommendations of the European Parliament.

- **2023**: expected introduction of the CBAM.
Thank you for listening. Time for Q&A
Appendix
Example of distortions that could erase if only a subset of sectors were to be covered by the CBAM

- We use here the cement sector as an example

### Basic materials covered by the EU ETS

<table>
<thead>
<tr>
<th>Fuels / refined mineral oil</th>
<th>cement / clinker</th>
<th>paper</th>
<th>ammonia</th>
</tr>
</thead>
<tbody>
<tr>
<td>steel</td>
<td>lime</td>
<td>cardboard</td>
<td>hydrogen</td>
</tr>
<tr>
<td>iron</td>
<td>glass</td>
<td>acids</td>
<td>synthesis gas</td>
</tr>
<tr>
<td>aluminium</td>
<td>ceramics / bricks</td>
<td>chemicals</td>
<td>soda ash</td>
</tr>
<tr>
<td>Metals (ferrous and non-ferrous)</td>
<td>pulp</td>
<td>Mineral wool</td>
<td>sodium bicarbonate</td>
</tr>
<tr>
<td>Coke</td>
<td>fertilizers</td>
<td>Carbon black</td>
<td>Metal ore</td>
</tr>
</tbody>
</table>

- Usually proposed sectors to be covered by the CBAM as a starting point (by those defending a “start small” approach)
- Cement substitutes materials

➢ Through the cement example we see that if we were only to cover a subset of basic materials covered by the EU ETS (the ones highlighted in orange here), there would be a strong risk of generating distortions and substitution effects among sectors within the EU domestic market (with potentially irreversible damage)


### Assessment method

**Application example: imported car**

<table>
<thead>
<tr>
<th>Material</th>
<th>Mass (Kg)</th>
<th>GHG intensity (kg CO₂ equivalent / kg of product)</th>
<th>GHG content (kg CO₂ equivalent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel</td>
<td>1000</td>
<td>3,01</td>
<td>3010</td>
</tr>
<tr>
<td>Glass</td>
<td>50</td>
<td>0,91</td>
<td>46</td>
</tr>
<tr>
<td>Aluminum</td>
<td>150</td>
<td>9,22</td>
<td>1383</td>
</tr>
<tr>
<td>Polyethylene</td>
<td>250</td>
<td>2,54</td>
<td>635</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1450</strong></td>
<td></td>
<td><strong>5074</strong></td>
</tr>
</tbody>
</table>

2. "Taking" the tax price

- **EU ETS market price**: in € / tonne CO₂ equivalent
  - 25

3. Total CBAM price for the car

<table>
<thead>
<tr>
<th>Total CO₂ equivalent emissions (tonnes)</th>
<th>Price per tonne (€ / tonne CO₂ equivalent)</th>
<th>Total price (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,074</td>
<td>25</td>
<td><strong>126,84</strong></td>
</tr>
</tbody>
</table>
Articulation with existing EU ETS – focus on export rebates

<table>
<thead>
<tr>
<th></th>
<th>Existing mechanism</th>
<th>Proposed mechanism</th>
<th>Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(free allocation of allowances)</td>
<td>(partial export rebates)</td>
<td>(full export rebates)</td>
</tr>
<tr>
<td>Exports</td>
<td>![Exports]</td>
<td>![Exports]</td>
<td>![Exports]</td>
</tr>
<tr>
<td>Domestic market</td>
<td>![Domestic market]</td>
<td>![Domestic market]</td>
<td>![Domestic market]</td>
</tr>
</tbody>
</table>

**Percentage of emissions paid by the average European producer depending on the selected mechanism and percentage of exports** *

<table>
<thead>
<tr>
<th>Percentage of production being exported</th>
<th>Existing mechanism</th>
<th>Proposed mechanism</th>
<th>Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>Free: 20%</td>
<td>Free: 20%*0% = 0%</td>
<td>Free: 100%*0% = 0%</td>
</tr>
<tr>
<td></td>
<td>Paid: 80%</td>
<td>Paid: 100%</td>
<td>Paid: 100%</td>
</tr>
<tr>
<td>50%</td>
<td>Free: 20%</td>
<td>Free: 20%*50% = 10%</td>
<td>Free: 100%*50% = 50%</td>
</tr>
<tr>
<td></td>
<td>Paid: 80%</td>
<td>Paid: 90%</td>
<td>Paid: 50%</td>
</tr>
<tr>
<td>100%</td>
<td>Free: 20%</td>
<td>Free: 20%*100% = 20%</td>
<td>Free: 100%*100% = 100%</td>
</tr>
<tr>
<td></td>
<td>Paid: 80%</td>
<td>Paid: 80%</td>
<td>Paid: 0%</td>
</tr>
</tbody>
</table>

Note: *assuming that the benchmark level based on top 10% performers represents 20% of the emissions level of the "EU average producer"