The conditions for an effective and fair carbon border adjustment mechanism

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OVERVIEW

The European Union must meet its climate objectives and direct all its public policies, including its trade policy, towards limiting the rise in temperatures to 1.5°C. The scope of its policies must extend beyond its territorial emissions and therefore include its imported emissions, while encouraging the rest of the world to start decarbonising the economy. This is where the future carbon border adjustment mechanism, the proposal for which is due to be presented by the Commission on 14 July 2021 can be a useful mechanism for both raising the European carbon price and ensuring that the prices of imports into the EU reflect their carbon content. For the measure to be effective, the EU must be unimpeachable on the climate objective of the mechanism and call on Member States, international partners and the private sector to continue their efforts to reduce emissions. Raising the domestic carbon price, including the introduction of a carbon price floor to avoid downward fluctuations, and ending the free allocation system are necessary preconditions. A key element in the acceptance of this mechanism by Europe’s trading partners will be to prove, at every stage, that it is indeed a climate measure, not only in terms of its design and implementation but also the intended use of the revenue associated with this mechanism, including its allocation to the funding of mitigation and adaptation in developing countries. This note outlines some of the important technical, legal and political considerations for an effective and fair carbon adjustment mechanism.

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Veblen Institute & Nicolas Hulot Foundation

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1. A MECHANISM TO ACCELERATE THE ECOLOGICAL TRANSITION OF INDUSTRY?

European trade policy must reflect its climate ambitions. The EU was a leader in the adoption of the Paris Agreement, and now has a commitment to reduce its GHG emissions by 55% by 2030. The Green Deal and the “Farm to Fork” strategy set new directions, also reflected in the new trade policy proposal presented by the European Commission in February 2021. But the operational implementation of these strategies remains inadequate. The Veblen Institute and the Nicolas Hulot Foundation, who, in 2019, published 37 proposals for reforming European trade policy, propose going much further. The environmental transformation of our modes of production and social justice must guide all public policies in order to meet the challenges of the 21st century.

It is essential to make trade policy consistent with climate and environmental policies. There is no point in reducing intra-European emissions if the EU’s carbon footprint—i.e. including the emissions contained in imported products—continues to grow. In this context, the European Green Deal includes a set of proposals, including a European “Carbon Border Adjustment Mechanism” (CBAM), with the aim of aligning the EU’s trade policy with its goal of decarbonisation.

1.1. Facilitating green industrial transition, both within the EU and in third countries

While the CBAM cannot replace a genuine policy of ecological transition for industries, particularly European ones, it can be used to apply rules equivalent to those imposed on European economic players on imported products, so that these rules can be tightened without fear of distortions of competition. In terms of its implementation, it could mirror the application of the Emissions Trading System (EU ETS) on priority sectors. Indeed, the European Commission specifies that the mechanism is aimed at sectors that are some of the highest emitters of CO₂ and are therefore those most likely to be affected by ambitious environmental measures to reduce emissions. It should be targeted at the sectors that are in urgent need of major transformation, such as the steel and cement sectors, but also other basic materials from high-emission sectors such as aluminium, oil refineries, paper, glass, chemicals and fertilisers. The electricity sector should also be included in this mechanism. The EU is a net importer of carbon emissions and this situation could worsen with the raising of domestic emission reduction targets. For example, one third of the EU’s carbon footprint currently

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1 M. Dupré, S. Leré, Putting trade at the service of ecological and social transition, 37 proposals for reforming European trade policy, 2019.
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comes from GHG emissions embodied in imports\(^4\). And while a 22% reduction in combustion-related \(\text{CO}_2\) emissions for energy between 1990 and 2016 was achieved through measures affecting intra-EU activities, this reduction is reduced to 17% if imported emissions are included in the calculation\(^5\). However, the endeavour proposed in the Green Deal would involve progressing from an average annual rate of emissions reduction of about 0.7% in the EU between 1990 and 2017 (excluding the crisis years of 2008 and 2009) to 4.3% per year from 2020 to 2050\(^6\).

Likewise, even a country with a trade surplus like Germany (8.3% of its GDP) may in fact be a net importer of \(\text{CO}_2\)\(^7\). In France, about half the carbon footprint is imported, and imported emissions have been increasing since 1995. In 2020, only a quarter of these emissions came from a region that has committed to achieving climate neutrality\(^8\).

The carbon border adjustment mechanism would, as indicated in the Commission’s consultation, ensure that the prices of the imports affected by it reflect their carbon content more fairly. This will address not only the issue of the risk of carbon leakage but also the broader issue of imported emissions. If properly designed, this scheme will contribute to the reduction of the EU’s carbon footprint, which has not followed a downward trend of the same magnitude as that seen for emissions produced within the EU.

1.2. An inherently insufficient tool

While various tools exist and can be developed to put an environmental cost on the most polluting products, whether produced in the EU or elsewhere, the priority is the implementation of structural policies to reduce our emissions in all sectors, in line with the trajectories set out in the Paris Agreement. Meeting the +1.5°C global warming target requires a drastic reduction in carbon dioxide, methane and nitrous oxide emissions by 2030. These sectoral policies must be accompanied by the anticipation of an employment transition (vocational training, revaluation of certain professions, support for necessary trades, etc.) and must take into account the potential impact of these measures on the poorest citizens, in order to prevent them.

The CBAM cannot, therefore, be thought of in isolation but must be seen and presented as part of a global climate policy, complementary to the massive effort that must be made at European level, in order to affect the emissions associated with European imports.

1.3. The case for an EU carbon price floor

In order to achieve our climate target, high levels of carbon pricing within the EU are necessary. This will have to be done, for energy-intensive sectors, through the EU ETS. Prices have


\(^7\) Rafael Cezar and Tancrède Polge, “\(\text{CO}_2\) emissions embodied in international trade”, Bulletin de la Banque de France, n° 228/1, March-April 2020.

\(^8\) French High Council for the Climate, “Maîtriser l’empreinte carbone de la France” [Controlling France’s carbon footprint], October 2020.
generally remained too low to be effective: around €10 per tonne in 2017 globally, with 75% of emissions regulated by a carbon price\(^9\). In 2018-2019, the EU ETS price was higher, stabilising at around €20 per tonne\(^{10}\) and reached €45 per tonne in April 2021\(^{11}\). But while there has been some improvement, this figure is still too low for a drastic reduction in emissions. As well as the price signal issue, the market has also been too volatile. The COVID-19 crisis, for example, led to a rapid fall in the price of carbon, revealing some major flaws in the system. Carbon prices in March 2020, at the start of the pandemic, were at their lowest since 2018. The instability and low prices risk delaying investments in the ecological transition and, more importantly, disinvestments from the most polluting energy sources, including the coal exit\(^{12}\). It is essential to introduce a floor price for CO\(_2\) to avoid such fluctuations.

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\(^{10}\) ERCST, Wegener Center, ICIS, I4CE and Ecoact, *2019 State of the EU ETS Report*  
\(^{11}\) *EU carbon price hits record high above 45 euros a tonne*  
\(^{14}\) *UK Energy Statistics, 2019 & Q4 2019*  
\(^{15}\) *Ibid*
1.4. Carbon leakage: genuine problem or spurious excuse?

Carbon leakage, as defined in the EU consultation, occurs “because production is shifted from the EU to other countries with lower ambition for emission reduction, or because EU products are replaced by more carbon-intensive imports”. It would involve the relocation of production in order to escape the environmental constraints of European regulations, or the increased supply of imported products due to excessive environmental constraints within Europe. This argument has mainly been put forward in the context of the EU ETS, to counter a reduction in European countries’ emission quotas. A study by the European Commission shows that there has been no relocation with the current free allowances\(^\text{16}\). While there is no such carbon leakage to date, the risk may increase in the future, particularly with the rise in carbon price in Europe. Member States and the European Parliament adopted new rules for the EU ETS in February 2018, and a new proposal is being discussed alongside the CBAM. It is essential that these two negotiations be conducted in a concerted manner.

In this context, the aim of the CBAM has to be to replace the measures intended to address the so-called carbon leakage risk under the EU ETS, i.e. the allocation of free allowances.

1.5. Free allowance allocation and the CBAM: having your cake and eating it too?

The large industrial companies invoke this risk of “carbon leakage” to justify the free allocation of allowances under the EU ETS. As such, the sectors most exposed to the risk of relocation still benefit from this allowance. For sectors less exposed to the risk of leakage, the free allocation rate is 30% until 2026, after which these free allocations will be phased out, with the exception of the district heating sector. This free distribution of permits to heavy industries was not significantly altered in the last revision of the EU ETS rules. It fails to encourage the decarbonisation of industries and the transition to lower-emissions production methods.

The EU ETS was designed to encourage the decarbonisation of production methods, but it is tricky to force European industries to do so while importing products that do not comply with equivalent rules. The CBAM must address this problem, by presenting a “mirror mechanism” that favours imports of the cleanest products and penalises the products that emit the most during the production phase.

If this—legitimate—burden is placed on polluting imports, the CBAM cannot coexist with the EU ETS free allocation system, as this would mean applying stricter rules on imported products than are in force within the EU. At the very least, it would unnecessarily complicate the mechanism by deducting, for example, the effect of free quotas on the price of imported products. From 2013 to 2020, 43% of total allowances\(^\text{17}\) were available for free allocation. During this period, the two sectors that received the majority of their allowances for free were the manufacturing industries and airlines. Although these

\(^{16}\) ECORYS, Oto Institut, Cambridge Econometrics, TNO, Carbon Leakage Evidence Project, Factsheet for selected sectors, for the European Commission DG Climate Action, 2013, In early 2013, in the context of the work for the 2030 climate and energy framework debate, DG CLIMA commissioned a study to inv

\(^{17}\) Free allocation Climate Action - European Commission, Free allocation | Climate Action, last consulted on 12/01/2021.
allowances decrease every year, emissions from the steel, cement and chemical industries did not decrease at all between 2012 and 2018, and the latest Commission report shows only a slight dip of -2.5% in 2019. This means that emissions are not consistently decreasing and could rise again. They should be covered by the CBAM because the cement, chemical and steel industries are responsible for almost 60% of European emissions. Free allocations of emission quotas must, therefore, be discontinued in order to avoid creating a double advantage and windfall profits for European producers. In this respect, the Commission’s position seems quite clear: the CBAM should be an alternative to free allocation. The same cannot be said for the positions of some Member States, however, nor of the European Parliament. In its initial proposal, France seemed to think that a CBAM could coexist at least temporarily with free quotas. From the perspective of WTO law, to which we will return in more detail below, applying a mechanism like this to trading partners without withdrawing the assistance provided to the same sectors within Europe (via the free allocation of allowances) weakens the mechanism because it risks being deemed incompatible. The EU would then be exposed to legal action and trade retaliation.

Our recommendations for making the CBAM a tool for transition:

- The mechanism should be based on the emissions of all greenhouse gases and not just the CO₂ impact of products.
- The CBAM should be applied to as many sectors as possible, starting with basic materials from high-emission sectors such as cement and steel, but also aluminium, oil, paper, glass, chemicals, fertilisers and the electricity sector. In a second phase, it will be important to extend this mechanism to these same basic products when they are incorporated in intermediate or processed products, such as steel in cars.
- There can be no free allocation of allowances for the sectors covered by the CBAM.
- The implementation of the CBAM should not be accompanied by new corresponding export subsidies.
- Its implementation should contribute to defining new market access rules based on environmental performance, thus increasing the environmental traceability of the global value chain, improving existing tools for assessing the GHG footprint of products, and perhaps even creating a GHG emissions score for a specific range of products, as recommended by the French Citizens’ Convention for Climate.

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18 Data from Sandbag (2019) and EEA (2020), and calculations from Carbon Market Watch (2021).
19 A New Hope, recommendations for the EU emissions trading system review, Carbon Market Watch, avril 2021.
20 Ibid.
2. THE TECHNICAL CHALLENGES OF OPERATIONALISATION

2.1 Sectors to be targeted
The CBAM should be introduced gradually, starting with sectors where emissions are high and carbon content calculations are already possible: steel, cement, electricity and aluminium. The implementation of a carbon border adjustment mechanism should start with the sectors already covered by the EU ETS, so that climate policy covers European industries in exactly the same way as corresponding imports. Indirect emissions should also be taken into account by considering the source of the electricity used in the industrial process, with the aim of encouraging a faster transition to renewable energy in the third country. For fossil fuels, in the context of direct imports, the carbon adjustment mechanism should not be the only tool considered. For example, the reform of the fuel quality directive should make it possible to discriminate between various types of oil and identify those with the greatest carbon impact, such as shale oil or oil from tar sands.

2.2 Traceability and availability of data
Assessing the carbon content of products is an extremely complex task. The calculation requires an in-depth knowledge of value chains, production processes, and environmental rules and costs in the producing countries, as well as their development over time. In many cases, manufactured products consist of several parts from different countries, which adds another layer of complexity to the calculation process. While assessing the GHG content of imports is complex and could disadvantage SMEs, technical difficulties have helped justify the status quo for too long. Traceability and transmission of information must become market access requirements for the energy and industry sectors. These could be immediately implemented for some of the products and value chains for which data exist (see below).

2.3 Carbon content verification
The system will need to include a default value for imports, which could, for example, correspond to the average carbon content of similar goods around the world while allowing foreign importing companies to pay less by proving that the carbon content of their production is lower than the world average. Producers and importers that have to pay a higher carbon tax in the countries of origin and/or those that can demonstrate a better GHG performance than the average carbon value for the production process used as default—as is the case in many developing countries where steel mills are newer than European ones—may be exempted, at least partially, from the CBAM. That said, the burden of proof and verification of carbon content should be delegated to independent third-party bodies; allowing self-certification represents a conflict of interest and would compromise the transparency and reliability of the verification process.
2.4 The special case of agriculture

The farming sector is specific and has multiple impacts. While fertilisers, the production of which is highly CO₂ intensive, can and should be included in any CBAM, the latter is not an appropriate measure for agricultural imports. The use of plant protection products (fertilisers, pesticides and other chemical products) is a major source of other greenhouse gases that are not covered by the CBAM in its current design. The crucial issue of nitrous oxide emissions in imported agricultural products—nitrogen emissions increased by 800% between 1961 and 2017, and nitrogen has 265 times the warming potential of carbon—requires dedicated public policies. Industrial agriculture also has serious impacts on biodiversity. The use of the CBAM, an instrument focused on carbon impact, for agricultural imports would be inadequate and even counterproductive. Other tools are more appropriate, in particular the implementation of a new specific “mirror measures” regulation that would require imported agricultural products to comply with European Union production standards. In the context of the fight against climate change and the protection of biodiversity, which are a common responsibility, greenhouse gas emissions and loss of biodiversity in third countries also affect Europeans. The mirror measure would therefore require that when an agricultural product or practice is banned in Europe, this ban would also apply to imported products.

2.5 Potential for circumvention

We also need to examine the limitations of the CBAM and how it can be circumvented. One concern is import substitution: goods and services covered by the CBAM might be replaced by others that are not; primary inputs replaced by semi-finished or finished products. For example, imports of steel for car production could be replaced by direct imports of cars. Another risk is transhipment: imports being shipped to an intermediate destination before being shipped to the EU. In this case, exporters may try to avoid paying a carbon tax by choosing an intermediate destination country that is exempt from the CBAM, such as least developed countries (LDCs) for example. When designing this mechanism, these flaws and their consequences should be assessed and the appropriate counter-measures implemented.

3. THE CONDITIONS FOR SWIFT ADOPTION

The introduction of the carbon border adjustment mechanism faces two major political obstacles: the first, internal obstacle is constituted by the legal conditions for its adoption within the European Union, where the requirement for unanimity often leads to a stalemate; the second obstacle relates to the European Union’s trading partners, who could attack the mechanism on the grounds that it would constitute a disguised protectionist measure. The Commission should be able to justify the CBAM, both in its policy design and in its communication, as an environmental measure. Any claim that it is a tool for business

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22 See our proposal: FNH, Institut Veblen, Interbev, Globalisation: How can we stop the import of food produced using banned practices in Europe?, March 2021.
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...will certainly be met with objections. The aim is to reduce emissions globally and meet the climate challenge.

3.1. Overcoming the obstacle of unanimity

To increase its chances of adoption in the EU, it would be strategic to consider the CBAM an adjustment rather than a tax. An “adjustment mechanism” would be similar to a customs duty and would, therefore, have to be decided by “qualified majority” in the Council under the co-decision procedure with the Parliament. The introduction of a new tax system at the Union’s borders, on the other hand, would require the unanimous agreement of all Member States.

3.2. How compatible is it with WTO rules?

Compliance with WTO rules is a major concern in the design of a carbon border adjustment. Numerous studies, including a legal assessment for the European Parliament, have shown that it is possible to design a CBAM that is legally viable. However, due to the absence of precedents, we lack the necessary hindsight to avoid all risk. The EU’s trading partners will, no doubt, try to prevent the adoption of such a scheme by threatening trade retaliation and legal action through the WTO, as is already being felt and has divided the Commission.

For the CBAM to be legally compatible with WTO law, it must meet the following criteria:

- **Necessity**: to clearly demonstrate the need for a border carbon mechanism and the absence of equally effective policy alternatives.

- **Fairness**: the carbon price imposed by the mechanism must be fair, insofar as it is comparable to the internal EU ETS and aligned with the European price per tonne of CO₂. It is therefore essential that the allocation of free allowances be abolished, otherwise the CBAM would be considered unfair as European manufacturers would not be subject to the same regime as foreign manufacturers. Fairness with developing countries must also be taken into account, so as not to represent an additional burden (see below).

- **Transparency and predictability**: The process for calculating GHG emissions from the products covered will have to be transparent and predictable and allow for the differentiation of producers with better environmental performance, in order to exempt them.

The risk of a WTO dispute should not be seen as an insurmountable obstacle or a deterrent to action. And even if the WTO ruled against a European CBAM, it would be up to the EU to

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engage diplomatically with its allies to open up a dialogue and adapt WTO rules to the challenges of the 21st century, particularly the fight against climate change and the loss of biodiversity.

3.3 A mechanism that must serve a global climate ambition

The EU must be careful to present this measure not as unilateral action but as a policy tool for implementing the Paris Agreement, one that its trading partners and other signatories to the Agreement could also use. It will also be important to recognise the efforts that have already been made by our trading partners, and even to open negotiations with countries that have a carbon pricing system. The CBAM could also be presented as an interim measure, aligned with the objective of not exceeding global warming of +1.5°C and a means of encouraging the ecological transition.

3.4 A mechanism for international solidarity

The least developed countries that export to the EU must be exempted from the CBAM, particularly given the principle of common but differentiated responsibilities of States in the climate crisis. Given that the lack of access to greener technologies and production methods is severely hampering the transition of their industries, a carbon adjustment would be a disproportionate burden on these countries. The CBAM should be applied primarily to industries in emerging and developed countries.

Revenue generated must also be used to serve this global objective

The EU’s initial plans call for all revenue from carbon border adjustment to be used to finance the recovery plan. In the Green Deal documents, the Commission mentions revenues of between €5 and €14 billion per year, although it fails to provide any details on the source of these figures or the methods of calculation. Allocating the revenue to the EU budget will be difficult to get international partners to accept. Indeed, in the event of a WTO dispute some trading partners could use this argument to try to demonstrate that the CBAM is, in fact, an arbitrary tax levied to generate revenue for the EU. The exclusively internal use of revenues would also undermine the legitimacy of the CBAM at WTO level, on the grounds of discrimination.

It would be preferable for the EU to commit to spending at least part—if not all—revenue from the CBAM externally, on financing low-carbon technologies and development in developing countries. This revenue could also be used to meet the EU’s international commitments on climate finance, or to contribute directly to climate action funds in exporting countries.

24 European Commission Fact Sheet: Financing the Recovery Plan for Europe
https://ec.europa.eu/info/sites/info/files/factsheet_3_04.06.pdf
CONCLUSION

The CBAM is an idea already put forward on several occasions at European level, notably by France. It has featured in public debate as a “common sense” measure to promote a level playing field between European and third country producers. But the public debate in France may be misleading. The proposal is far from unanimously supported by the other EU Member States and is inevitably causing a lot of tension among our trading partners. Moreover, it is not a stand-alone tool but rather a measure that must form part of the wide-scale strengthening of the objectives and tools for decarbonising European industrial activities. The effectiveness and viability of this mechanism is therefore highly dependent on its calibration. And in this regard, all proposals to introduce a CBAM while retaining the allocation of free emissions allowances currently appear counterproductive from a climate perspective and incompatible with WTO law, and seem to be aimed more at burying the idea again than at working towards its effective implementation.