



Carbon border adjustment mechanism: Tax or tariff for the climate?

Options for the EU

Jan Cernicky und Armin Hartlieb

- › In light of the EU's more ambitious climate targets, the European Commission intends to introduce a carbon border adjustment mechanism in order to stem carbon leakage.
- › Three possible configurations are under discussion: a kind of consumption tax, a tariff on the carbon content of imported goods, and the inclusion of imports in the EU-wide emissions trading system.
- › There is no ideal carbon border adjustment mechanism. Key problems are WTO conformity, the calculation of the "carbon content", and compatibility with existing climate protection measures.
- › In this context, climate diplomacy does not lose significance. In contrast, it has to be hoped that an EU border adjustment mechanism is ultimately made redundant by a climate protection regime covering all important trading regions.

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1. Background to the debate

Under the Paris Agreement the EU committed to reducing greenhouse gas emissions by at least 40% by 2030 and to seek to be climate neutral by 2050. The “Green Deal” proposed by the current European Commission under Ursula von der Leyen raises these targets. A reduction in emissions of at least 55% by 2030 compared to 1990 emissions has been announced. The introduction of a WTO-compatible carbon border adjustment mechanism has also been proposed. As a final decision can only be reached after the trilogue (the formal decision-making process for EU law involving the Commission, Council, and Parliament), the actual configuration of the adjustment mechanism is still under discussion.

The carbon border adjustment mechanism should ensure there is no rise in global greenhouse gas emissions, caused by industrial processes being transferred out of the EU and the products subsequently being imported back into the EU. If this so-called “carbon leakage” occurs, the EU’s climate protection measures are not only ineffective from a global perspective, they also expedite a de-industrialisation of the EU. Any instrument should also incentivise importers from countries lacking ambitious climate policies to reduce their emissions so their products remain competitive in the EU. Meaningful volumes of greenhouse gas emissions are at stake. Imports are calculated to account for around one quarter of the EU’s total greenhouse gas emissions.

It is clear that a global emissions trading system would be the most efficient instrument. However, owing to the strongly differing views of the important actors in relation to climate protection, an agreement on this front does not look likely in the medium-term. The EU has already established a system to trade pollution rights (EU emissions trading system – ETS), whose application in all EU member states as well as Iceland, Norway and Lichtenstein until 2030 is provided for by law. At the same time, Germany has adopted an additional, national emissions trading system, which from 2021 increases the price of the marketing of fuels and thus integrates the transport and heating sectors into carbon pricing. To offset the disadvantages for industry, compensation mechanisms already exist, such as subsidies for industrial electricity prices and the free allocation of ETS certificates.

However, in light of the more ambitious climate targets set out in the Green Deal, these compensation mechanisms will no longer suffice. In order to achieve the new targets it will be necessary to phase out the free allocation of ETS certificates, and for certificates to become scarcer and more expensive. A new design of the compensation mechanism therefore seems necessary. The introduction of an adjustment mechanism at the EU external border or more generally the linking of this issue to trade is not a must. A targeted extension of the existing compensation mechanisms for companies in the EU would also be a possible solution. However, the Commission appears inclined to introduce a mechanism at the external border. This instrument would need to fit into a market environment

that is already characterised by multiple state interventions. Therefore, it is no triviality to find a way that doesn't further bureaucratise the climate policy of the EU and Germany. It would absolutely be possible to work towards more market-based instruments (certificate trading, global solutions within the WTO framework, etc.)

Alongside the question of more market or more state, there is also a lack of clarity in the discussion regarding the objectives of the mechanism. Three objectives tend to be mixed up with each other:

- › climate protection;
- › the protection of European industry;
- › fiscal objectives (new direct income for the EU).

It will be important for the debate to prioritise the targets and to confuse them as little as possible, because a border adjustment only makes sense when climate protection is the most important of the three objectives. The other two objectives can be achieved at least as well with simpler measures.

2. Border adjustment – arguments for and against

Arguments for a border adjustment

The central argument in favour of a border adjustment is that, if well designed, it can prevent carbon leakage. In this way, a relocation of European production to non-EU countries is prevented, thereby protecting the European economy. At the same time, it is ensured that the EU's climate protection measures actually lead to a reduction in global greenhouse gas emissions. Owing to the border adjustment, importers globally are incentivised to invest in climate-friendly production in order to stay competitive on the EU market. The EU market is big and important enough to have this impact on many export-oriented companies in non-EU countries. As companies would have to declare the carbon content of their products, transparency over the greenhouse gas balance of products would also increase. The carbon pricing would also create an incentive for consumers to reduce the greenhouse gas emissions from their consumption behaviour. At the same time, new income for the EU budget would be generated.

Arguments against a border adjustment

However, there is a variety of counter arguments to what appears at first glance to be a good idea:

- › The border adjustment would probably be seen by third-countries as a protectionist measure, which at heart it actually is. The result is likely to be new trade conflicts. This goes against the EU's intention to protect multilateral systems and in particular to reform the WTO, taking away a lever to extort climate protection measures via trade policy measures.
- › The high level of administrative burden would make the climate protection system in Europe and Germany even more complex. For example, it is barely possible to take account of Germany's national emissions trading system starting from 2021 in a Europe-wide border adjustment. In addition to the costs for climate protection, the bureaucracy costs should not be underestimated.

- › Ascertaining the carbon content of imports is difficult. This is particularly true for semi-finished and finished products resulting from long supply chains. The current ETS is for example not designed for this scenario, but rather captures primarily raw materials. Therefore, it is not possible to simply extend the ETS to semi-finished and finished products. Further, it is very difficult to correctly and reliably certify the carbon content of basic commodities from less developed countries, as there is a lack of qualified certifiers. The risk of a manipulation or a turning away of imports from developing countries would be high.
- › However, it is not a satisfying solution to initially only apply the border adjustment to raw materials and basic commodities. It would in theory be possible to include only a few relevant commodities in a first phase. But if semi-finished and finished products are not included, this would create an incentive to move these stages of production outside of the EU. Even steps that are actually cheaper in the EU could be transferred outside of the EU, as this would be in total less expensive than importing the raw materials subject to the border adjustment. It would also be susceptible to manipulation, as unnecessary production steps could be carried out in non-EU countries simply in order to have enough value creation on paper so that the imported good is no longer classified as a raw material.
- › The oft-touted benchmarking also does not solve the problem. Under this approach a carbon content is assumed for imported goods based on the level of similar goods out of EU production, creating the desired “level playing field”. However, this approach can only serve as a climate production instrument if products for whose production less CO₂ is emitted than under the benchmark are subject to a lower tariff. If this is not the case, it makes no difference for importers if a product contains a lot or a little CO₂, and therefore there is no incentive to reduce CO₂ emissions. However, a very precise calculation of the carbon content would be necessary to prove that a product lies below the benchmark. Thus, a certification would again become necessary.
- › Even with a functional border adjustment mechanism the impact on global greenhouse gas emissions may not be significant. There is a risk that “green resources” (renewable energy, very efficiently extracted resources) could be diverted to the production of goods for the EU, while less climate-friendly resources are instead used for products for the domestic and non-EU markets.
- › Finally, it is questionable if, overall, new income would be generated for the EU, as – depending on the model – reimbursements for European exports or compensation for adversely affected segments of the population would be necessary.

3. Outline of three options for a border adjustment

a) Carbon tax on selected products, regardless of whether they are imported or produced in the EU

A carbon tax is collected as an indirect consumption tax, in a similar way to value-added tax (VAT). As with VAT, the tax is effectively only paid by the end consumer. It is “passed on” at every stage of production or onward sale. Importers pay the tax at the point of import into the EU. At the point of export from the EU the tax is reimbursed. To avoid a doubling of the burden, European companies that fall under the ETS are refunded the costs arising from the emissions trading system.

b) Carbon tariffs/taxes on imports

Importers pay a tariff based on the carbon content of a product at the EU border. The ETS and other existing compensation mechanisms in the EU remain in force. The tariff is designed so that it approximately reflects the additional cost of EU products arising from European climate protection measures. Reimbursements for exporters or other compensation mechanisms for European industry to create a level playing field (e. g. free allocation of ETS certificates, electricity price subsidies, or subsidies for climate-friendly investments) are still possible.

c) Extension of the EU certificate system to imports

Importers must purchase ETS certificates at the point of import or demonstrate that they were subject to an equivalent burden in their home country. It would be necessary to introduce a second pillar to the ETS, as existing certificates have already been budgeted in specific sectors. This would be possible in a transition phase via the creation of “virtual certificates” which would not have to necessarily reflect the actual level of emissions. From 2030 imports could then be included a new, more comprehensive system. Reimbursements for exporters or other compensation mechanisms for European industry to create a level playing field (e. g. free allocation of ETS certificates, electricity price subsidies, or subsidies for climate-friendly investments) are still possible.

Pros and cons of the three options

In addition to the general arguments in favour of and against a border adjustment mechanism set out above, there are pros and cons associated with each of the three specific solutions.

Advantages of the proposed solutions

| Carbon tax on selected products | Carbon tariff on imports | Extension of the certificate system |
|--|---|--|
| WTO conformity is easy to achieve, as measures such as VAT already conform. | Relatively easy to combine with existing systems. | The existing system can be used or relatively simply expanded. |
| Easy to implement and communicate, as it would copy the long-established VAT system. | Hardly any new administrative burden. | Countries and regions that create their own certificate trading systems can relatively easily become part of the EU system. Thus, the path to a worldwide trading system remains open. |
| | | Precise and medium-term steering of the CO ₂ reduction in specific sectors, as is politically desired, is possible. Once the reduction target is set, very little further political intervention is needed to achieve it. |

Disadvantages of the proposed solutions

| Carbon tax on selected products | Carbon tariff on imports | Extension of the certificate system |
|--|--|--|
| <p>Due to the refund of the carbon tax for exports, there would be little incentive for export-oriented companies to reduce their emissions.</p> | <p>WTO conformity is questionable. The introduction of new tariffs would only be permitted by referring to important resources (in this case the atmosphere). It is highly likely that the measure would nevertheless be regarded as protectionism and blocked via the currently not functioning dispute settlement mechanism.</p> | <p>WTO conformity is difficult to achieve, as the obligation to purchase certificates would be a kind of tariff. This would only be permitted by referring to important resources (in this case the atmosphere). It is highly likely that the measure would nevertheless be regarded as protectionism and blocked via the currently not functioning dispute settlement mechanism.</p> |
| <p>It is not possible to precisely steer emissions reduction via a tax, in contrast to the politically desired and formulated sector-specific reduction targets. To guide emissions reductions, frequent political inventions to adjust the tariff would be necessary.</p> | <p>It is not possible to precisely steer emissions reduction via a tax, in contrast to the politically desired and formulated sector-specific reduction targets. To guide emissions reductions, frequent political inventions to adjust the tariff would be necessary.</p> | <p>The certificate system is inflexible: a reduction in emissions beyond the initially agreed targets is unlikely, as unused certificates can be traded. Unexpected reductions, for example through new innovations, lead to the release of an unexpectedly large amount of certificates and thereby to a low certificate price. In turn, this reduces the incentive to reduce greenhouse gases in other sectors, as the emissions become cheaper.</p> |
| <p>The tax would not be compatible with the existing ETS.</p> | <p>Tariffs reduce global trade volumes and therefore have a negative impact on wealth.</p> | <p>With full integration into the EU ETS, emissions generated outside of the EU would appear in the EU's own CO₂ balance. This admittedly has no effect on global CO₂ emissions, but could be politically uncomfortable, as EU emissions would appear to increase significantly.</p> |

4. Outlook and conclusion

The above analysis shows that there is no ideal solution for a carbon border adjustment mechanism. All of the possible instruments contain inherent problems that are not easy to solve. The biggest problem is establishing the carbon content of goods. Even the existing calculation system in Germany struggles when it comes to complex products. It is even more difficult for imports from non-EU countries, as documentation and certification along the individual steps of the supply chain is barely possible in less developed countries. The aforementioned “benchmarking” might be a solution. However, as described above, a closer look reveals this approach would only serve as a protection mechanism for European industry.

It will not be realistic in the medium-term to include all economic sectors in a border adjustment mechanism. Rather, it is only possible for raw materials and minimally processed products. If climate protection is the only political goal, a carbon border adjustment mechanism could achieve this, as it does create an incentive for producers of raw materials to invest in climate-friendly production processes. Despite the subsequent diversion of trade for less carbon efficient products to non-EU markets, it should still have a meaningful impact owing to the size of the EU market and thereby also create incentives to reduce CO₂ emissions outside of the EU. However, in terms of protecting the European economy, a non-comprehensive system will have little effect, as the incentive to shift supply chains would be large, and it would likely mean that for semi-finished and finished goods (not covered by the mechanism) they would possibly be relocated out of the EU.

Therefore, it appears sensible to look for simpler alternatives. These could include abstaining from an explicit protection at the border, but instead removing burdens on domestic industry. This would be easier, but would also have lesser results in terms of climate protection. The EU would be participating in the “race to the bottom”, and a pricing of greenhouse gas emissions in exactly those sectors with the highest emissions would be undermined.

In the long run, climate diplomacy is therefore the most promising route. A practical and functioning climate protection system effectively contributes to a reduction in greenhouse gas emissions without creating a risk for individual regions that its industry will relocate. This is only possible when all relevant global economic actors agree on a common system. The debate around an EU “climate tariff” might at least raise the pressure on its partners to adopt climate protection measures and thus render the tariff unnecessary.

Imprint

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After studying political science and philosophy in Hanover and Paris, Jan Cernicky received a doctor's degree with a thesis on regional integration in Western Africa. He ran a consulting company that assists small and medium-sized companies to enter markets in Africa. From 2015 he headed the offices of the Konrad-Adenauer-Stiftung in DR Congo and Kenia. Since 2020 responsible for international trade and economy at the headquarter of the foundation.

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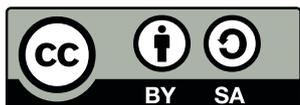
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