

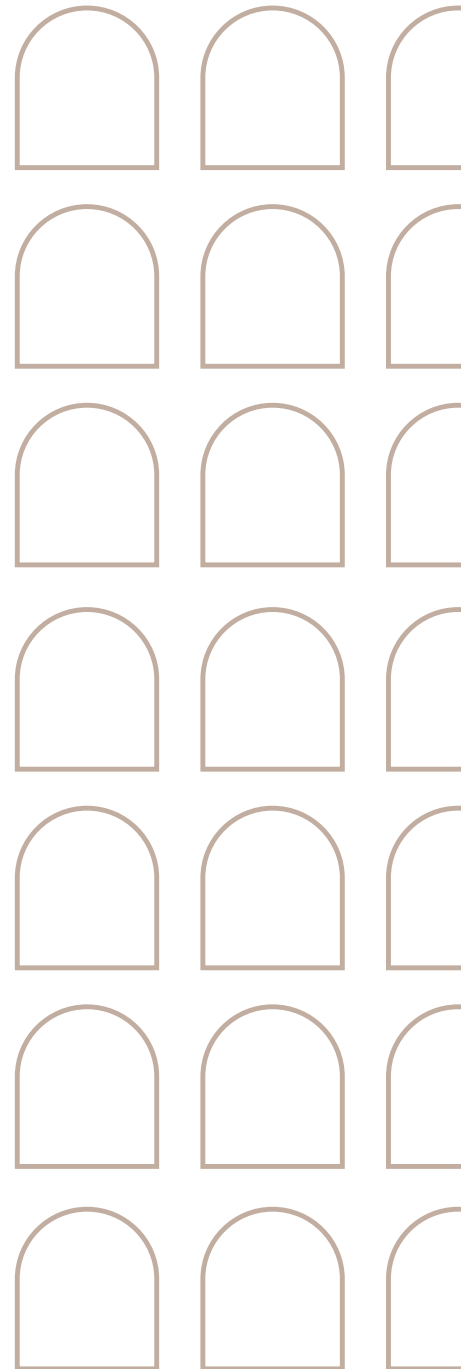
STG Policy Papers

POLICY BRIEF

KEY ISSUES FOR THE COMING TRADE AND CLIMATE DEBATE

Authors:

Jos Delbeke, Piotr Dombrowicki, and Peter Vis



EXECUTIVE SUMMARY

Europe's intended proposal for a Carbon Border Adjustment Mechanism (CBAM) is imminent. It is also controversial. Making this work in a way that is WTO compatible is challenging, particularly if industry in Europe wishes to retain some free allocation under the EU's Emissions Trading System. This Policy Brief describes some of these challenges, and also takes a closer look at imports of electricity and cement – where they are from and what are their carbon intensities? What would be the costs that a CBAM would impose on these imports, and how do these compare with free allocation to European producers as a method for preventing carbon leakage? The results suggest that the protection that a CBAM might offer against carbon leakage would be limited, while the lost value of free allocation for EU producers may be high. Could reform of free allocation be a substitute for CBAM and stimulate investment in break-through technologies? More extensive consultation with WTO member countries will be necessary on the basis of the legal proposal that the European Commission makes.

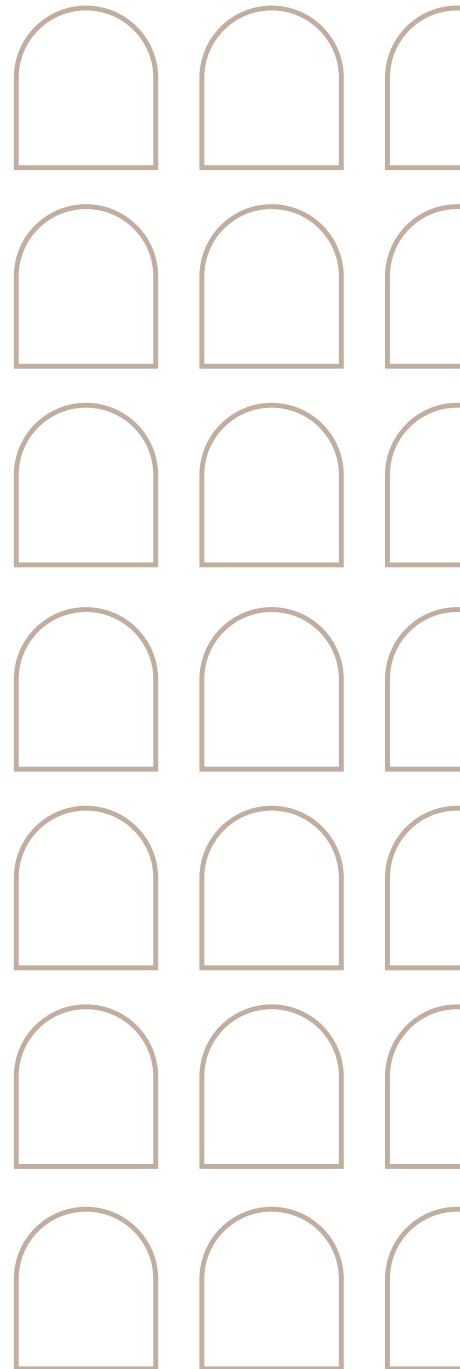
Authors and acknowledgements:

Jos Delbeke | EIB Professor of Climate Policy, EUI School of Transnational Governance

Piotr Dombrowicki | Research Associate, EUI School of Transnational Governance

Peter Vis | Senior Research Associate, EUI School of Transnational Governance

This paper benefited from a [session](#) of the EUI's [State of the Union 2021 conference](#) in which this issue was debated with Susanne Dröge (SWP - German Institute for International and Security Affairs), Billy Pizer (Duke University and RFF, USA), and Vangelis Vitalis (Deputy State Secretary for Trade, New Zealand).



1. POLITICAL CONTEXT

On 14 July 2021 the European Commission is expected to table a legal proposal for a Carbon Border Adjustment Mechanism (CBAM).¹ This is considered to be timely now that the price of a tonne carbon dioxide (CO₂) on the EU Emissions Trading System's (EU ETS) allowance market has reached a level of around €50. Recent political agreement on the [Climate Law](#) will set both the EU's strengthened target of at least 55% emissions reductions by 2030 compared to 1990 and the EU's commitment to climate-neutrality by 2050 in law, goals that are bound to have a major impact on the EU's carbon market.²

Until now a system of free allowances has sheltered European companies from 'carbon leakage', which is when the production of certain goods relocates to countries without comparable climate policies, thereby gaining cost advantage. A CBAM is now being suggested as an alternative to free allocation, with the additional advantage that it may encourage other countries to introduce similar climate policies. Simple relocation of industrial activity does not help bring down global emissions, and competitors operating in jurisdictions without carbon constraint are seen as 'free-riders'. Moreover, making Europe climate-neutral highlights the issue of imported goods also causing emissions in their manufacture. Even if its own production might be emissions free, would Europe really be able to take the moral high ground internationally if it still relies on carbon-intensive imports? A CBAM is a logical consequence of its commitment to climate neutrality.

Notwithstanding the usual variability of markets, the EU ETS allowance price has risen considerably in recent months. The present price level is likely to create some uneasiness in the affected sectors even if it is close to or within the range between \$50 and \$100 per tonne of CO₂ that economists such as Stern and Stiglitz consider as necessary.³

This Policy Brief sketches out three issues around the introduction of the CBAM: the political reaction by the EU's international partners, the potential impacts of the CBAM on specific sectors – the electricity and cement sectors being analysed in more detail by way of example – and the possible contribution of CBAM to reducing global greenhouse gas emissions.

2. A CBAM IS LOOKED AT WITH SCEPTICISM BY GLOBAL PLAYERS

Two kinds of political reactions can be distinguished: the ones linked specifically to the climate context, in particular the United Nations Framework Convention on Climate Change (UNFCCC), and those relating to international trade and the WTO.

Despite the fact that the EU wants to strengthen its climate policy through the CBAM in the context of the European Green Deal, the reactions from global actors in the climate policy field have been mixed. US Climate Envoy John Kerry called a border adjustment a measure of "[last resort](#)" while the so-called BASIC group, encompassing Brazil, China, India, and South Africa viewed European plans with "[grave concern](#)". According to them the CBAM proposal would contradict the spirit of the Paris Agreement. This international agreement has a voluntary nature, whereby each Party has to develop its own Nationally Determined Contribution (NDC) towards meeting the global temperature goals mentioned in Article 2. The Paris Agreement, and the contributions made under it, must acknowledge the principle of 'Common but Differentiated Responsibilities and Respective Capabilities', which the BASIC countries maintain CBAM does not respect.

The EU needs to urgently step up its diplomatic efforts to explain that the issue is primarily inspired by the wish to meet the global goals of the Paris Agreement, which are not going to be met if there is carbon leakage from Europe, which would amount to a reshuffling of

1 DELBEKE, Jos, VIS, Peter, A way forward for a carbon border adjustment mechanism by the EU, STG Policy Briefs, 2020/06. Retrieved from Cadmus, European University Institute Research Repository, at: <https://hdl.handle.net/1814/69155>

2 European Commission Communication "The European Green Deal" COM(2019) 640 final of 11.12.2019: https://ec.europa.eu/info/publications/communication-european-green-deal_en

3 Report of the High-Level Commission on Carbon Prices: <https://www.carbonpricingleadership.org/report-of-the-highlevel-commission-on-carbon-prices>

economic activity and related carbon emissions between countries, instead of a reduction of emissions. A CBAM is not contradictory to the flexibilities allowed by the Paris Agreement to differentiate commitments in terms of timing and ambition so as to allow for further economic development. New, cleaner technologies, offer multiple opportunities for development that leapfrog energy-intensive, polluting technologies in the same way that mobile telephones avoid the need for extensive land-line telephone networks from being deployed.

This collective interest argument in the context of the Paris Agreement is quite different from arguments around 'fair' trade. Europe's trading partners may see the CBAM as a threat to their export markets, and as a veiled protectionist move. They may be tempted to retaliate with similar restrictions of goods exported to them, even if some of these may reduce their emissions trajectories.

The EU has repeatedly stated that it remains a strong supporter of multilateralism and of the WTO. It does not see its proposal on a CBAM as contradictory and has said from the start that its CBAM proposal will be compatible with WTO rules. However, the WTO is also well aware of the need to engage in a more comprehensive debate about how to make trade arrangements compatible with climate and sustainability concerns. Climate change and sustainability issues should become an integral part of the reform agenda the institution has set for itself.

One of the most difficult dimensions of implementing a CBAM is whether climate efforts undertaken by different countries are comparable or equivalent. Countries have very different economic strategies and natural endowments, along with differences in history and demography. Even countries that have comparable goals in terms of climate ambition may take very different approaches to their climate policies, with differing impacts on the goods they trade with one another. As trade rules cover specific products, where fairness hinges on equality of treatment, this trade

dimension is very different from the macro context of the climate debate, where fairness is centred around policy differentiation.

The EU should consider strengthening its outreach to Parties of the UNFCCC as well as to members of the WTO, so as to promote a better understanding of Europe's motivation and intention. CBAM is not about protecting European industry from competition, nor re-writing the rules of the Paris Agreement, but avoiding unfair distortion arising from its willingness to act decisively on climate change. Good practice warrants that there is substantial interaction with trading partners within the WTO before introducing substantive new policies and measures with a trade impact. It is therefore to be hoped that the CBAM proposal currently being prepared will serve as the basis for substantive engagement within the WTO before proceeding with the decision-making negotiation between Council and Parliament.

3. POTENTIAL EFFECTS OF A CBAM FOR THE ELECTRICITY AND CEMENT SECTORS

The EU stated it wants a CBAM that is compatible with WTO rules. It may therefore propose a cautious way forward by advancing an overall framework accompanied with a phased approach that includes only a few sectors at first, such as electricity and cement. Electricity imports amount to almost 3%⁴ of intra-European production, which is matched by the situation in the cement sector.⁵

Publicly available data on international trade of goods and energy statistics indicates which countries would be affected most by a CBAM in these sectors: for cement it concerns primarily Turkey and to some extent Ukraine and Belarus; for electricity it concerns Russia and Serbia and some other Balkan countries (Switzerland and Norway are already covered by the EU ETS). A CBAM for electricity and cement would shift the debate away from the global level towards the EU's neighbourhood, as these products are traded primarily over limited distances.

⁴ The gross electricity production in 2018 in EU-27 was at 2 940 276,731 GWh (Eurostat energy statistics), while the import into EU-27 from non-EU countries was at 84 051,833 GWh -the percentage is 2,859%.

⁵ Cement production in 2019 in EU-27 based on Eurostat (PRODCOM database) was at 185,154 Mt, while imports into EU-27 were at 5,232 Mt (Eurostat – database on international trade of goods). This gives the percentage of 2,826%.

The CBAM debate suffers from a lack of solid empirical evidence as regards the carbon embedded in imported compared to domestic products. Nonetheless, data available in the public domain, albeit with some existing gaps, may still offer some useful observations.

The CO₂ emission intensity of electricity from the Russian Federation seems to be some 25% more carbon intensive than the EU average, but for neighbouring Balkan countries such as Serbia, Bosnia and Herzegovina or North Macedonia the carbon intensity is about three times higher than the European average.⁶ The estimated direct CBAM revenues would be limited, in the highest range reaching a few hundred million Euro annually.⁷ A good case can be made for the Balkan countries, who have applied to accede to the EU, to introduce an ETS comparable to the EU's prior to accession. Furthermore, there is nothing to stop Russia from doing the same domestically, where it can be sure the revenues generated would remain in the country. In each of these countries, a domestic ETS could kick-start an energy transition sooner rather than later.

The CO₂ emission intensity of a tonne of cement imported from Ukraine and Belarus seems to be some 10% higher, and in Turkey's case even 25% higher, compared to the European average⁸, showing relatively smaller differences in comparison with the intensities of imported electricity. This could give rise to CBAM revenues amounting, in the highest range, to around €122 million annually (using a carbon price of €35/tonne).⁹ However, this is a limited amount compared to what the perceived value of free allocation in the cement sector could be. Looking at the clinker production volumes in the EU and the [recently](#)

[revised benchmarks](#), one could assume that the decision setting out the free allocation for the period of 2021-2025 (not yet adopted) in the cement sector would allocate around 90 million free allowances annually. Assuming the carbon price of €35/tonne, this would be worth around €3.15 billion, that the Commission has said would have to be gradually phased out. This indicates that the phasing out of free allocation would have a much greater revenue effect than the introduction of the CBAM. This explains the attachment industry has to free allocation. However, the revenues arising from reduced free allocation would flow primarily to the member states hosting the cement installations, and could be used to finance innovation and the deployment of advanced technologies.

The above results are likely to apply to other major emitting sectors such as steel, non-ferrous metals production and chemicals, but there are also important differences. Traded products of the latter sectors are much more global than electricity or cement, with more complex value chains, and hence many more countries would be impacted. This will obviously lead to more diplomatic pressure on the EU, not least from major trading partners such as China or the US. Hence the importance of talking through all issues related to CBAM in advance of implementing the legislation.

Another issue is the reshuffling of traded goods, where producers direct low-carbon products to the EU while they keep less carbon-efficient products for trade with non-EU partners. Such re-shuffling could result in a minimisation of CBAM liability without any global climate benefit.

6 Based on the 2019 IEA publication 'CO₂ Emissions from Fuel Combustion', the 2017 emission intensity for electricity generation in the Russian Federation – 351 gCO₂/kWh, Serbia – 787, Bosnia and Herzegovina – 857, North Macedonia – 713; https://www.oecd-ilibrary.org/energy/co2-emissions-from-fuel-combustion-2019_2a701673-en. The EU average intensity in 2019 was at 275 gCO₂/kWh – based on EEA data - <https://www.eea.europa.eu/data-and-maps/indicators/overview-of-the-electricity-production-3/assessment>

7 Assuming a simple calculation using the volumes of electricity imported into EU-27 from non-EU countries (around 87 745 GWh in 2019 based on Eurostat), multiplying by the available exporting country intensity and by the assumed EUA price (at €35/EUA). This simplified calculation does not take into account any exemptions (e.g. for non-EU countries with EU ETS links) nor policy crediting and is without prejudice to any final form of the CBAM and to how the CBAM charges will be calculated. A country example: Russian Federation imported 11 472 GWh into EU in 2019. Multiplied by the intensity of 351 gCO₂/kWh and the EUA price of €35 gives around €140,9 million.

8 Based on the GNR database and regional values for emissions intensity, but also considering individual country studies; <https://gccas-sociation.org/gnr/>

9 Again, assuming a simple calculation using the volumes of cementitious products imported into EU-27 from non-EU countries (around 5,232 Mt in 2019 based on Eurostat), multiplying by the available exporting country intensity and by the assumed EUA price (at 35 €/EUA). This simplified calculation does not take into account any exemptions (e.g. for non-EU countries with EU ETS links) nor policy crediting and is without prejudice to any final form of the CBAM and to how the CBAM charges will be calculated. A country example: Turkey imported 1,97 Mt of cement into EU in 2019. Multiplied by the intensity of 0,79 tCO₂/t cement and the EUA price of €35 gives around €54,5 million.

The preliminary indications for the cement sector point to the fact that the differences in carbon intensity averages between imported and domestic production is smaller than expected. The major EU manufacturing industries such as cement, steel and chemicals have in the past received significant values of free allocation under the EU ETS, and this value will increase if European carbon prices rise and free allocation is maintained.

The European Commission has, since the beginning, presented the CBAM as an alternative to free allocation, in view of ensuring compatibility with WTO rules. A striking recent new element has been the adoption of a [Resolution by the European Parliament](#) arguing in favour of a CBAM combined with the continuation of free allocation of EU ETS allowances, at least temporarily. This is likely to make the CBAM vulnerable to legal challenge in the WTO. Producers exporting to the EU may claim that they have not enjoyed the benefit of a 'subsidy' of free allocation of a balance-sheet value for the EU ETS as a whole that may easily represent some €700 billion through to 2050, almost half of which would be available to EU producers before 2030. Much better would be to turn such free allocation towards financing much more ambitious low-carbon innovation efforts by EU producers.

4. IS CBAM CAPABLE OF BRINGING DOWN GREENHOUSE GAS EMISSIONS?

Part of the EU's purpose with a CBAM is to trigger more pro-active climate policies in particular in major economies – including emerging economies. This remains an urgent priority. Noble Prize winner Professor W. Nordhaus pronounced himself in favour of 'carbon clubs' that would strengthen cooperation between countries that were members, and put pressure, in the form of import levies, on non-members of the club.

A similar but distinct concept is to form coalitions of the willing, capable of bringing forward climate policy action in a plurilateral context. For example, the [Agreement on Climate Change, Trade and Sustainability \(ACCTS\) initiative](#) by Costa Rica, Fiji, Iceland,

New Zealand and Norway advocates the liberalisation of trade in environmental goods and services, as well as the phasing-out of fossil fuel subsidies. Such plurilateral initiatives need more followers, not least by trading blocs such as the EU and the US, and their remit should be as wide as possible. Such coalitions could trigger a debate about the most urgent climate problem of today, which is probably the use of coal in power generation. Europe's CBAM proposal may find it difficult to address the coal issue effectively at a global level, but a process could be started to identify new fields of action for the WTO.

The consultation that the EU needs to engage in with its climate and trading partners will undoubtedly gather more suggestions for actions different from the EU's CBAM proposal but addressing the same concerns and objectives. The merits of each of these suggestions should be evaluated, in particular with respect to advancing the climate action agenda as urgently as possible. Similarly, the EU could already now review its many bilateral trade agreements and endeavour to insert and strengthen in all of these climate and sustainability considerations.

5. CONCLUSION

More time and consultation: The coming decade is a decisive one in the fight against climate change. The EU's Green Deal sets out an ambitious policy agenda on the energy transition as well as on the stimulus of breakthrough low-carbon technologies. This requires massive investment and the management of the risks that go with it. Addressing the issue of carbon leakage and the competitive impact on its companies is key. It may make sense to deploy a mix of internal and external initiatives in that regard. The CBAM may be part of that mix but it will not be the quick fix that many have been hoping for. It may materialise later this decade, rather than earlier as now hoped. CBAM needs a sustained diplomatic effort, and time for this should be allowed for.

Re-orient free allocation towards breakthrough technologies: The EU should accept the fact that a CBAM is unlikely to raise high revenues. If the European Green Deal requires

more resources to accelerate the low-carbon transition it could consider a combination of an extended scope of the EU ETS combined with a reduction of free allocation. If the ending of free allocation is resisted, the CBAM debate at the international level will be even more complicated. The best option would be to turn around the system of free allocation in favour of break-through, low-carbon technologies that enable a net-zero economy when deployed at sufficient scale, instead of continuing with the current benchmarks that rely upon 'best-of-what-exists' technologies .

Openness to other approaches: Finally, the EU needs to engage urgently in a pro-active climate diplomacy on CBAM both in the UNFCCC as well as in the WTO. It needs to

explain that the CBAM is not a protectionist move, but an honest attempt to address the issue of carbon leakage. In this endeavour the EU needs to engage with major partners such as the US and China, and many others in Asia, Africa, and Latin America. A plurilateral approach may be a useful in-between step towards the full-fledged introduction of a CBAM. A high priority in this regard must be the phasing out of coal-fired power production in a medium-term perspective.

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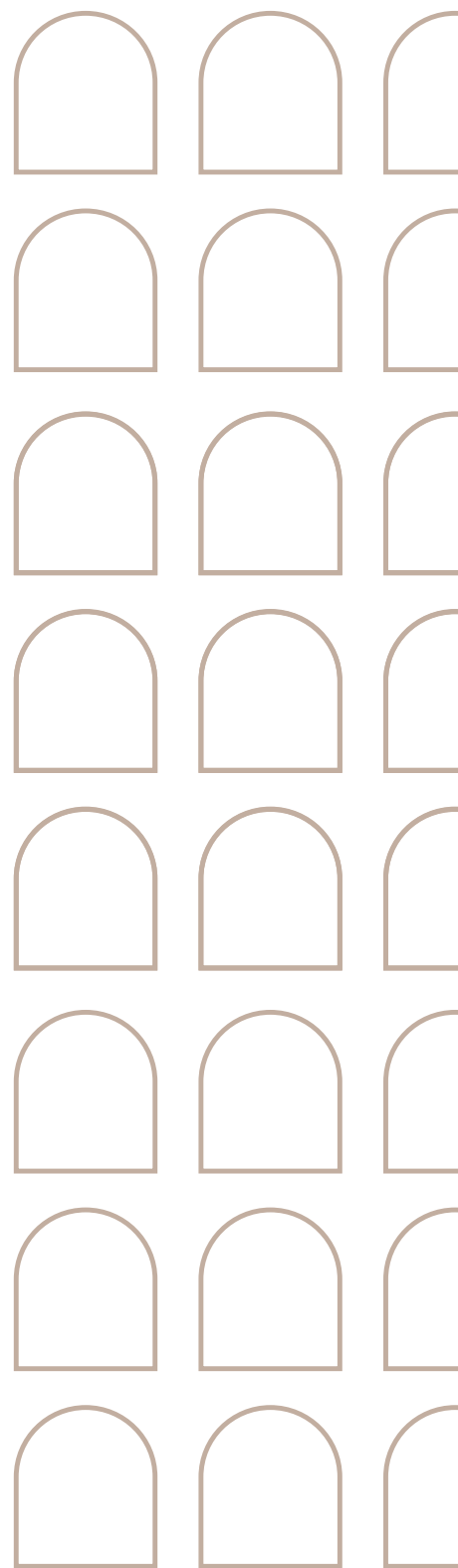
School of Transnational Governance
European University Institute
Via dei Roccettini, 9, I-50014 San Domenico di Fiesole (FI), Italy
Tel. +39 055 4685 545
Email: stg@eui.eu

www.eui.eu/stg



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doi:10.2870/163281
ISBN:978-92-9466-014-5
ISSN:2600-271X
QM-BA-21-012-EN-N