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Climate action in the making: business and civil society views on the world's first carbon border levy

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Abstract

Carbon border levies have been suggested as an important tool for ramping up climate action. Such a levy is being negotiated as part of the EU's Green Deal, with input from public consultations. The success of the EU's carbon border adjustment mechanism (CBAM) will depend on its design and acceptance. While most analyses focus on resistance from the EU's major *external* trade partners, this article analyses the views of *non-state* actors *within* the EU. Their views will be decisive for the cohesion and determination of the EU as the CBAM proposal encounters external resistance. Examining the views of European business and civil society organizations expressed by 276 respondents in the EU's public consultation, we show that there is general support for CBAM but divergent views on its purpose and on what to do about the allocation of free allowances in the EU Emissions Trading System, sectoral coverage, exemptions for third countries, export rebates and emissions scope. The success and strength of CBAM will depend on whether the EU is able to resolve these design issues and reach compromises between the opposing views of business and civil society.

Keywords: Carbon border adjustment, CBAM, Non-state actors, EU Emissions Trading System, Climate policy, Trade

Graphical Abstract



Introduction

Many countries are exploring the possibility of introducing carbon border levies or adjustments in order to meet their climate mitigation commitments (Government of Canada 2021; Ponciano 2021; UK House of Commons

2022). Carbon border adjustments are defined as ‘a regulatory strategy to mitigate the risks of carbon leakage and loss of competitiveness associated with the unilateral adoption of carbon pricing policies’ (Pirlot 2022, p. 28).

The jurisdiction that has come closest to establishing a carbon border adjustment mechanism (CBAM) is the EU. The CBAM proposal is part of the EU's Green Deal, a major policy package aimed at making the EU climate neutral by 2050 (Kulovesi and van Asselt 2020). Although the idea of carbon border adjustments has circulated for

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some time (Pirlot 2015), its implementation would represent a novel instrument in international climate governance. As articulated by the European Commission, the official purpose of CBAM is to reduce the risk of carbon leakage in the context of the EU's heightened climate ambition (European Commission 2021). Yet, its design and effectiveness will be determined through a policy process that involves many interests. This paper draws attention to a set of political aspects of the policy process that have previously not received much attention in the CBAM literature.

The need for CBAM stems from changes in the EU's broader carbon pricing system. To reduce its greenhouse gas emissions in accordance with the European Climate Law, the EU seeks both to strengthen the carbon price signal and to make more emitters pay for their emissions. The main EU-wide mechanism for imposing a price on greenhouse gas emissions is the EU Emissions Trading System (EU ETS). The EU ETS puts a cap on emissions of greenhouse gases from power plants, manufacturing industries and air traffic in the EU. When the EU ETS was established in 2005, industrial sectors that were considered subject to severe economic competition from producers outside the EU were given free emissions allowances. Without free allowances, the carbon price imposed on European industry, the EU argues, risked shifting trade patterns and resulting in carbon leakage (Jakob 2021). In other words, carbon intensive production might be relocated to regions with laxer climate policies.

In other words, as carbon pricing signals are strengthened, CBAM is meant to shield European industry from unfair competition from goods produced in non-European countries that do not have carbon pricing. CBAM has been proposed as a substitute for the free allocation of allowances (Ismer et al. 2020), as free allowances need to be phased out for the EU ETS to be effective in reducing emissions. However, additional purposes have been attached to CBAM in policy circles, e.g., encouraging other countries to implement stronger climate policies, generating revenue for the EU and promoting European climate leadership (Pirlot 2022). The precise purpose of CBAM is important, because it will guide policy design choices (Pirlot 2022) and have implications for the international legitimacy of the mechanism, trade relations and alignment with the UN Framework Convention on Climate Change (UNFCCC) (Droege 2011). If CBAM tries to accommodate multiple objectives, it risks becoming ineffective (Cullenward and Victor 2020).

Moreover, the details of the CBAM design are highly complex (Cosbey et al. 2021; Droege and Fischer 2020). The proposal drafted by the European Commission is currently, i.e. in 2022, being negotiated in the European

Parliament and the Council of the EU. With the policy scheduled to become effective as early as 1 January 2023, its final design very much depends on political compromises that could have implications for its effectiveness. While the actual effectiveness of CBAM cannot be assessed until it is implemented and running, the preconditions for creating an effective instrument can be examined. This paper therefore seeks to contribute to the literature on climate governance by examining the EU consultation process in the run-up to the Commission's release of a legislative proposal to introduce the CBAM.

Given the novelty of this policy instrument, its eventual design will be a result of social learning and experimentation (Hall 1993). While much of the literature has focused on how CBAM will affect other countries (Böhringer et al. 2022), the successful implementation of CBAM will in large part depend on the preferences and political compromises among actors *within* the EU (Galston 2008). Such a policy process includes setting the overarching goal, choosing the policy instruments to attain this goal and choosing the setting for the instruments (Hall 1993). Societal actors have a role to play in influencing the policy process (Greenwood 2017). The growing governance literature provides evidence of the influence of non-state actors on policy processes (Klüver 2013), not least at the stages of agenda-setting and negotiations (Howlett et al. 2009; Upadhyaya et al. 2018).

There is considerable variety in how non-state actors are described in the literature (see, e.g. Schoenefeld 2021 for an overview). In this article, we examine resistance and support for CBAM among business and civil society organizations within the EU. We chose these two categories because business and civil society are highlighted by the existing literature as highly influential in EU policy processes, with '30,000 lobbyists permanently based in Brussels, the majority of whom represent business interests' (Coen et al. 2021 p. 65; see also Dür and Mateo 2014; Kastner 2018; Klüver et al. 2015).

Both constituencies influence policy dynamics by directly engaging with policymakers through the provision of expertise, lobbying, campaign donations and reputation building (Coen et al. 2021; Orach et al. 2017). They can also use other pathways such as swaying public opinion and shifting positions of non-partisan actors within advocacy coalitions (Orach et al. 2017; Klüver 2013). Past proposals to introduce a carbon border levy in the EU proved hard to realize in the face of strong counter-lobbying from business organizations, especially energy-intensive industry sectors, and mixed attitudes from civil society groups (De Ville 2012; Mehling et al. 2019). An analysis of business and civil society views can

therefore increase our understanding of the political feasibility of the current CBAM proposal.

Using quantitative and qualitative data derived from a large-scale public consultation carried out by the European Commission (further discussed in the next section), we examine the positions of business and civil society to draw out the implications of political contestation for the realization of CBAM. We argue that conflict and consensus among these organizations could drive political compromises that produce trade-offs that could ultimately strengthen or undermine the CBAM initiative (Cullenward and Victor 2020).

The paper proceeds as follows. The next section outlines the mixed methods approach of the study and describes the data sources employed. Thereafter, we present the analytical framework followed by a section in which we present the results. The final section discusses our findings and concludes by drawing out the implications for understanding the divergent positions between business and civil society on key CBAM design and implementation issues.

Methods

This study uses secondary data collected by the European Commission in a public consultation carried out between July 22 and 28 October 2020, before the Commission issued its official CBAM proposal on July 14, 2021 (see the timeline in Fig. 1). The aim of the consultation was threefold: to give all citizens and organizations the opportunity to inform policy development, to gather opinions on policy options and their possible impacts and to identify opportunities and challenges connected with the future CBAM (European Commission 2020).

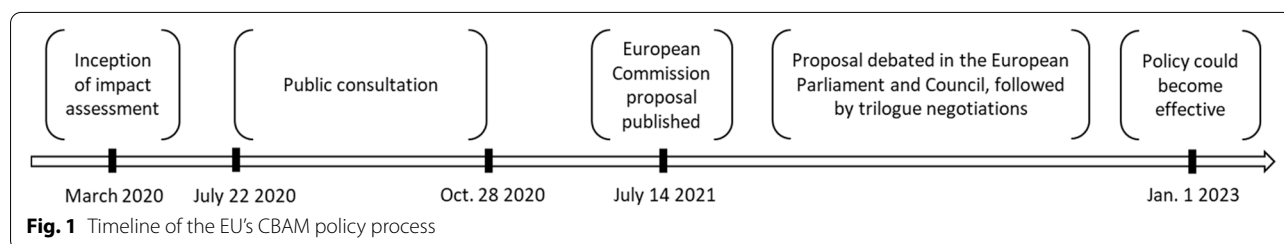
The sample of respondents, the questions they were asked and the context of their responses are not random, nor are they meant to be. Instead, our interest is in the official reactions of European business and civil society organizations that constitute part of the EU policymaking process. Self-selected respondents are more likely to represent interests affected by the CBAM, positively or negatively, and thus, those that are more likely to act to influence the final design of the instrument. However, self-selection bias means that the results do not reflect perceptions of the EU business and civil society

organizations more broadly. Instead, the results should be viewed in the context of the policy process specific to CBAM. The respondents to the consultation were officially reacting to the Inception Impact Assessment released in March 2020 (European Commission 2020). Thus, responses to questions about the potential effectiveness of the CBAM are more likely to reflect opinions of the earlier conceptualizations note. It is also possible that some respondents (e.g. smaller companies and organizations) had less background knowledge about the CBAM proposal compared to larger and more networked companies and organizations. Nevertheless, since the aim of the analysis is to examine business' and civil society's expressed views on and preferences for a CBAM as a new policy tool, the data provide rich material for the analysis.

While some views and preferences may have changed since the Commission's proposal was revealed and new issues may have arisen in the dynamic policy process, our analysis—by focusing on important design issues—will have implications for decisions in the ongoing negotiations. The consultation and the resulting data have two parts: (1) quantitative data gathered through an online questionnaire administered by the European Commission and (2) qualitative data gathered in the form of open-ended, self-composed texts submitted by the participants in the consultation. The overall CBAM questionnaire included more questions than analysed in this study. We selected the most salient CBAM design issues through review of the literature. The process of issue selection is described in the section that outlines the analytical framework.

Quantitative survey data

The EU's public consultation received responses from a wide range of non-state actors, including businesses, trade associations, non-governmental organizations, individual citizens, trade unions, consultancies, public offices, think tanks and academic institutions. The final sample included a total of 617 respondents (European Commission 2020). In our study, we use data from those respondents who allowed public access to their input. Access to personal data allowed us to select responses from respondents that reside in the EU. We further



limited our analysis to business organizations (companies and business associations, $n = 225$) and civil society organizations (environmental organizations, other NGOs, trade unions, consumer organizations and research institutions, $n = 51$), excluding responses from individual citizens as well as a handful of respondents from public administrations in EU member states.

The survey data are ordered and non-normally distributed, i.e. suitable for non-parametric statistical tests. The Mann-Whitney U test provides a suitable non-parametric method to analyse whether the distribution of survey responses from two groups in a population are equal or not. We used it to compare and detect statistically significant differences in views among two respondent types: businesses and civil society organizations.

Qualitative data from open-ended submissions

We selected qualitative submissions for further content analysis in two steps. In the first step, we used the following selection criteria: (1) all business associations classified as 'large' (250 employees or more); (2) the five largest companies by dollar revenue and the five largest by number of employees; and (3) all civil society organizations with 10 or more employees. In the second step, from the resulting list of respondents, all those that provided open-ended responses were included in the analysis, as shown in Table 1.

We did not aim for the qualitative sample to reflect the proportions of respondent categories in the quantitative survey. Instead, we wanted to look at examples of submissions by large business and civil society organizations as they are most influential in the policy process. Thus, rather than a representative sample, we elected to focus on the top 10 organizations within each of the two categories in terms of size for each actor type, as a proxy for their potential weight in the policy process. Our main goal was to use the open-ended submissions to substantiate and complement results from the survey data. Content analysis was conducted on the qualitative data in search for views on issues related to the same analytical categories that structured the quantitative survey (see Table 2).

Analytical framework

To select the key material from the EU's CBAM consultation, we carried out a review of the literature to identify the most salient CBAM design issues. The existing research on carbon border adjustments is almost exclusively economic and legal (e.g. Al Khourdajie and Finus 2020; Böhringer et al. 2012, 2017; Branger and Quirion 2014; Fischer and Fox 2012; Fouré et al. 2016; Ghosh et al. 2012; Hecht and Peters 2019; Helm et al. 2012;

Table 1 Selected organizations for qualitative submissions analysis

Actor type	Names
Business	ArcelorMittal Confederation of Danish Industry Danish Agriculture and Food Council (DAFC) Danish Chamber of Commerce Engie European Non-Ferrous Metals Association (Euro-metaux) Federation of Austrian Industries Price Waterhouse Coopers (PwC) Repsol Veolia
Civil society	Carbon Market Watch CEE Bankwatch Network Climate Action Network Europe European Environmental Bureau European Federation of Building and Woodworkers Federation of German Consumer Organizations German NGO Forum on Environment and Development IndustriALL Europe Institute for European Environmental Policy WWF European Policy Office

Mehling and Ritz 2020; Moghaddam et al. 2013; Monjon and Quirion 2011; Pirlot 2017; Springmann 2013). This literature assesses how different objectives and designs balance economic costs, administrative feasibility, environmental effectiveness, international legal obligations and risks for and responses from EU trade partners (Eicke et al. 2021; Lehne and Sartor 2020; Mehling et al. 2019; Morgan 2020). When it comes to design issues, Marcu et al. (2021, p. 5) identify key policy choices which 'will determine the final shape and implementation of the instrument'. They are presented in Table 2, along with references to additional literature that notes their importance. As these points are likely to be sources of disagreement among EU business and

Table 2 Selection of most salient CBAM design issues

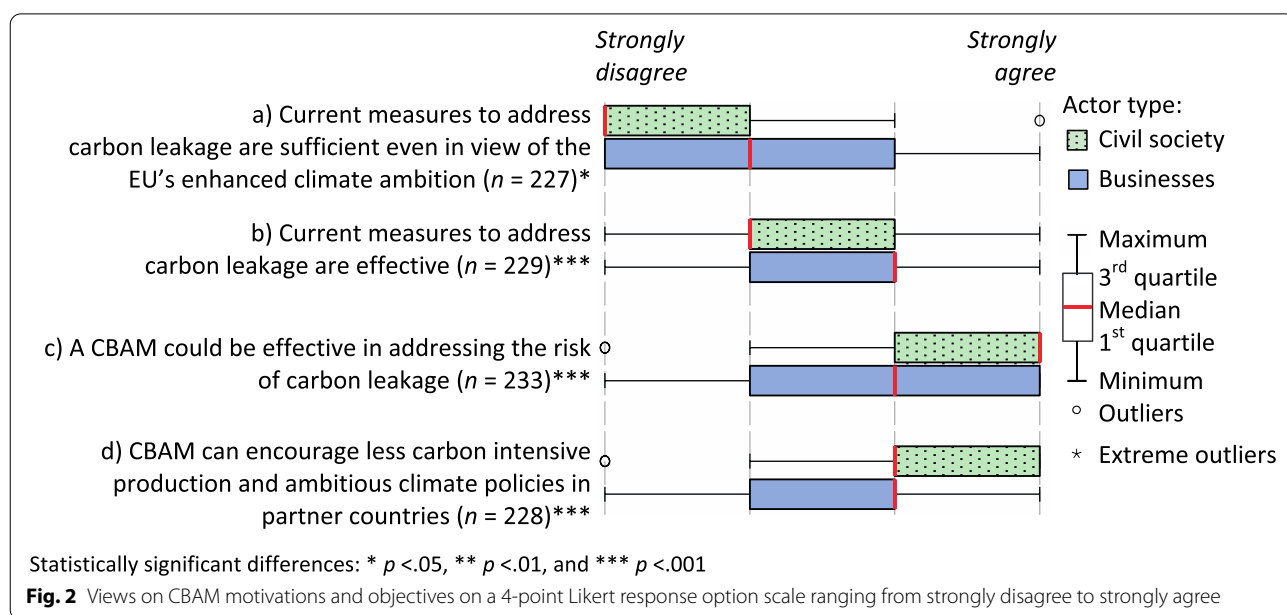
Overarching theme	Policy choices	Supporting literature
Motivations and objectives	Why is there a need for CBAM and its effectiveness in addressing carbon leakage and other objectives?	Marcu et al. 2021; Monjon and Quirion 2011; Branger and Quirion 2014; Jakob 2021, Palacková 2019; Pirlot 2022
Policy instrument	What type of policy instrument underpins CBAM (e.g. an emissions trading system or a carbon tax)?	Marcu et al. 2021; Nartova and Shingal 2014; Rocchi et al. 2018; Monjon and Quirion 2011
Geographic scope	Should some countries be exempted from CBAM and how should policies in the country of origin be accounted for?	Marcu et al. 2021; Mehling et al. 2019; Cosbey et al. 2020; Ravikumar 2020
Sectors and products covered	What sectors and subsectors should be covered?	Marcu et al. 2021; Rocchi et al. 2018; Lininger 2015; Kuik and Hofkes 2010; Mehling et al. 2019; Zachmann and McWilliams 2020
Coverage of trade flows	Should imports only be covered or also exports?	Marcu et al. 2021; Evans et al. 2021; Mehling et al. 2019; Fischer and Fox 2012; Monjon and Quirion 2011
Emissions scope	What emissions (direct, indirect) should be covered?	Marcu et al. 2021; Balistreri et al. 2015; Mehling et al. 2019; Lininger 2015; Mattoo et al. 2013; Ghosh et al. 2012; Porterfield 2019
Determination of embedded emissions	What methodologies are used to calculate emissions embodied in goods?	Marcu et al. 2021; Balistreri et al. 2015; Mehling et al. 2019; Rocchi et al. 2018; Lininger 2015; Mattoo et al. 2013; Monjon and Quirion 2010

civil society organizations, we analyse those CBAM hearing questionnaire items that concern these policy choices.

Results

In this section, we present the results of our analysis of the data from the EU’s consultation questionnaire. We focus on items where we found statistically significant disagreement between business and civil society respondents. However, we include all analysed questions

related to each overarching theme, even if there is no statistically significant difference between the responses of business and civil society. Responses to the last overarching theme—determination of embedded emissions—are moved to the [Appendix](#) because there is no statistically significant disagreement between the two groups on any of the items within that theme. We also discuss the implications of this in the [Appendix](#).



CBAM motivations and objectives

The first of the salient CBAM design issues identified in the literature was motivations. The survey data indicate several noteworthy divergences in views on the adequacy and effectiveness of existing measures to limit carbon leakage (Fig. 2 (a, b)). There are statistically significant differences between the views of businesses and civil society on whether current measures to address carbon leakage are sufficient ($p = .012$) and effective ($p < .001$). Civil society tends to oppose the view that the current measures are sufficient and effective. Businesses also disagree to some extent that the current measures are sufficient yet are more satisfied with their effectiveness than is civil society.

The positions of civil society organizations stated in the qualitative data from the open-ended submissions, in line with the quantitative data from the survey, criticize the continuous use of free allowances due to a failure to decarbonize industry. They argue that 'CBA[M] must replace free CO₂ allowances' (European Environmental Bureau, see also input from The Federation of German Consumer Organizations) and keeping free allowances while implementing the CBAM would constitute a 'double subsidy under WTO rules' (Climate Action Network, see also input from Carbon Market Watch) and would further distort the EU ETS. Open-ended submissions by business, which are less uniform than by civil society, help explain the reasoning behind their responses to the survey. For instance, the Federation of Austrian Industries and the transnational energy company Repsol argue that CBAM should *complement* rather than substitute free allowances—as they view free allocation of allowances as a well-functioning tool to mitigate carbon leakage. Similarly, the steel manufacturing corporation ArcelorMittal believes that current tools will not be enough in the future and will need to be *supplemented* by CBAM. Some business submissions break with the general pattern of views and acknowledge a need for the phasing out of free allocations (e.g. Veolia). The Confederation of Danish Industry emphasize, however, that the phase out cannot be rapid, arguing that companies have made investments based on the provision of free allocation until 2030.

The results of the survey (Fig. 2 (c)) also show statistically confirmed differences in views between business and civil society on whether CBAM could be effective in addressing the risk of carbon leakage ($p < .001$). While both groups largely agree that CBAM could be effective, the views of business are less supportive and more diverse. For instance, Eurometaux, the European non-ferrous metals association, state that they do not wish to be in the list of pilot sectors of CBAM because they 'do not see a possibility to design a WTO compatible CBAM

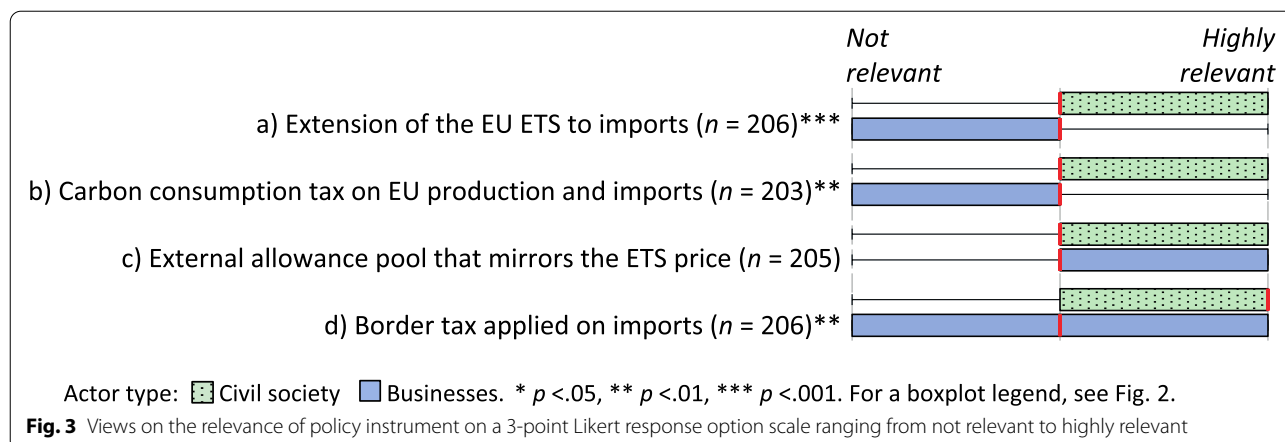
that covers indirect carbon costs.' The main message from business submissions is summarized in a statement by the Confederation of Danish Industry, which highlights that 'CBAM must not negatively affect the competitiveness of European companies.'

CBAM effectiveness is likely to be evaluated by its success in preventing carbon leakage. But other objectives also crop up in current public discussions. We find statistically significant differences between the views of businesses and civil society on whether CBAM can encourage less carbon intensive production and ambitious climate policies in partner countries ($p < .001$), with civil society agreeing more strongly with the statement than business (Fig. 2 (d)).

The qualitative data further explain the position of many businesses that avoiding carbon leakage and 'climate dumping' (the Danish Chamber of Commerce) in the EU should be the main objective of CBAM, with a few highlighting a complementary aim of international climate diplomacy (ArcelorMittal). The French energy utility company Engie also warns that a 'careful consideration should be given that the need for revenues to finance the NextGenerationEU does not become the main driver of the design of the mechanism.' By contrast, civil society takes a broader view on the role of CBAM. The WWF states that CBAM should be 'driving the fight against climate change and protecting the environment while combining social objectives, not purely as a tool to both contribute to the financing of the EC [European Commission] recovery plan and protect industrial competitiveness against the risk of carbon leakage.' The European Environmental Bureau, a broad NGO network, highlights as additional goal of CBAM to 'drive non-EU economies towards low-carbon production' (see also the European Federation of Building and Woodworkers). As a solution to encourage stronger climate policies in developing partner countries, the German NGO Forum on Environment and Development argues that 'revenues from a CBAM must be passed on to them for adaptation, climate protection and mitigation measures.' In addition, the Federation of German Consumer Organisations sees CBAM as a tool that can enable 'consumers to consume sustainably'.

Policy instrument

For several design options, there are statistically significant differences in views between the two groups of respondents (Fig. 3 (a, b, d)), for instance on whether CBAM should be set up as a border tax applied to imports ($p = .004$). Most business and civil society respondents, however, largely agree that it is moderately important that the price in the external allowance pool



mirrors the ETS price within the EU (Fig. 3 (c)). While most civil society organizations view this option as highly relevant, the views of businesses are more dispersed around a median value of 'moderately relevant'. The European Commission proposal suggests implementing CBAM via an external pool of allowances that mirrors the EU ETS price, compliant with the option with the highest convergence in views between businesses and civil society on this issue.

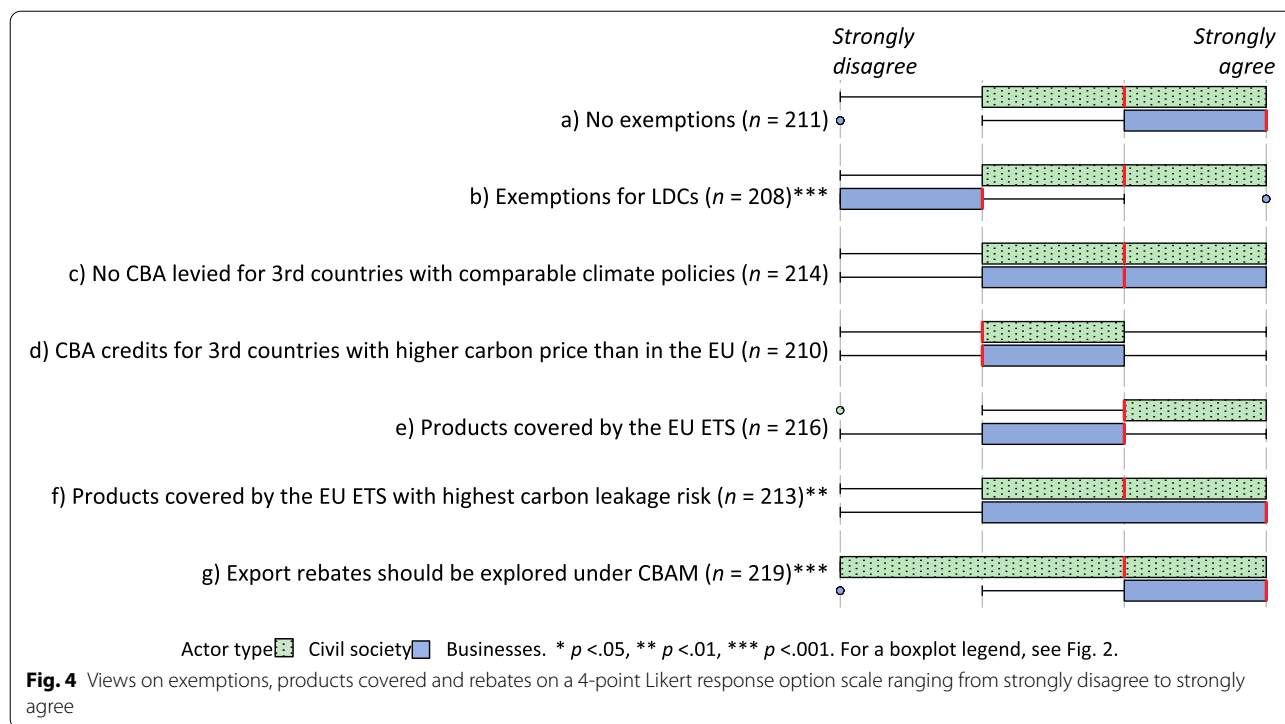
In their free-text submissions, business organizations provide various rationales for supporting different policy instruments depending on their concrete design and application. Veolia, for example, leans towards a tax applied on imports as well as a carbon tax at consumption level, justifying the latter as an opportunity to correct weaknesses of the EU ETS, more specifically the fact that 'free allocation mutes the carbon price signal for materials down to customer level'. With regard to policy options involving the EU ETS, they do not have an opinion due to lack of clarity on the impact of these policy instruments 'on the existing EU ETS and CO₂ allowances price evolution'. By contrast, Engie is categorically against 'the inclusion of imports in the EU ETS as to not impact the integrity and the good functioning of the EU ETS. Extending the EU ETS also to imports will trigger additional challenges and risks undermining firm carbon price signals; or shift the higher decarbonization efforts to the sectors currently already covered by the EU ETS if newly increased sectors are less price-sensitive'. Yet, many businesses are supportive of a policy instrument that in some way is linked to the EU ETS (e.g. European Energy Traders, Federation of Austrian Industries, PwC). For example, PwC argues that 'a requirement that importers purchase ETS allowances at the prevailing price would appear to be the policy instrument that is most effective in achieving the objectives of the CBAM'.

Similar to business organizations, civil society is supportive of a policy instrument that is linked to the EU ETS. According to WWF, 'it could be conceived as a tax on imports as an equivalent to the costs carried by EU industries as a result of having to buy carbon permits under EU ETS' (also see input from the European Environmental Bureau). However, Carbon Market Watch is critical of the option that would involve creating an external allowance pool that mirrors the EU ETS price. They argue that 'despite being the option that would fully shield the EU ETS from potentially negative impacts on price dynamics...the obligation to purchase allowances from a separate pool would not expose importers to exactly the same conditions to which EU industry is subject, which in turn would undermine its effectiveness in ensuring a level playing field. Moreover, setting up a separate pool that mirrors exactly the price fluctuation in the EU ETS seems unrealistic or at least complex to achieve'.

Geographic scope: exemptions and adjustment for foreign climate policies

Concerning the third CBAM design issue identified by the literature, geographic scope, Fig. 4 (a, b) shows that civil society is more in favour of exemptions for least developed countries (LDCs) than business ($p < .001$). At the same time, there is agreement between business and civil society that CBAM fees should be lowered for countries with 'comparable climate policies' (Fig. 4 (c)).

The civil society qualitative data largely support the survey results. Carbon Market Watch argues for exempting LDCs and small island developing states. Climate Action Network Europe mentions policy provisions that counter negative effects of CBAM in partner countries, 'such as on domestic resources and exports', including exemptions 'according to country and sectoral differentiation'.



The qualitative data from the business sector is mainly about CBAM adjustment or rebates for countries with domestic carbon pricing or policies, or products that are ‘cleaner’ than the EU benchmark, e.g. PricewaterhouseCoopers Netherlands (PwC), Veolia, Eurometaux and ArcelorMittal. Veolia, for example, stresses that CBAM should apply for all but ‘producers from countries that have instituted sufficiently ambitious domestic climate policies provided it is done in a fair and transparent manner’. With regard to exemptions for LDCs, ArcelorMittal argues that ‘least developed countries are unlikely to be affected by the measure’ (see also input from Veolia). In a slightly different angle on the issue, Engie states ‘whereas a differentiated treatment of imports from developing countries might be envisaged under the CBAM, it should be designed in such a way that it continues promoting sustainable development and avoid adverse effect such as a standstill of local technological improvements or lock-in of more emitting assets’.

Sectors and products covered

On the fourth design issue, sector and product scope (Fig. 4 (e, f)), businesses have a stronger preference than civil society for applying CBAM to products from activities with the highest risk of carbon leakage ($p = .008$).

In the qualitative submissions from both business and civil society, among those that are supportive of the instrument, there is a general agreement that CBAM

should begin by covering sectors that are carbon intensive, exposed to trade and vulnerable to the risk of carbon leakage. There are nuances in the civil society submissions on this issue. For example, Carbon Market Watch argues that ‘the power sector – a sector generally not considered at risk of carbon leakage – should be included in specific cases where high carbon imports of electricity from neighbouring countries occur’. On the business side, some respondents argue for the extension of CBAM to all parts of the value chain. Eurometaux, for example, argue that such an approach should be implemented from the onset of the CBAM (see also input from the Federation of Austrian Industries), while Eurofer states that ‘once the CBA is introduced on the most carbon and trade intensive activities, it could be extended progressively to cover the entire value chains’ (see also input from PwC).

Coverage of trade flows: export rebates

Regarding the fifth design issue, coverage of trade flows, civil society shows less support than business for export rebates under CBAM ($p < .001$) (Fig. 4 (g)). The open-ended responses further articulate the position of business respondents that export rebates are essential to include in CBAM design. ArcelorMittal, for example, argues that ‘a rebate for exports is necessary and consistent with the environmental rationale of the CBA[M]’. They go on to state that, if rebates are not granted, CBAM ‘could be detrimental for EU exports to third countries’.

Repsol states that they ‘strongly agree about exploring the rebate options, always bearing in mind WTO requirements.’ By contrast, Climate Action Network argues that ‘[e]xport rebates should be excluded from the mechanism as this could encourage differentiated production for domestic and export markets’ and thereby undermine higher climate ambition. In addition, Carbon Market Watch states that ‘rebates for exports would lower the carbon price effectively faced by European industries and risk to create perverse incentives. Moreover, export rebates would not be coherent with higher EU climate ambition and the drive to encourage higher climate ambition globally. Carbon should be priced regardless of the market on which a product is sold.’

Emissions scope

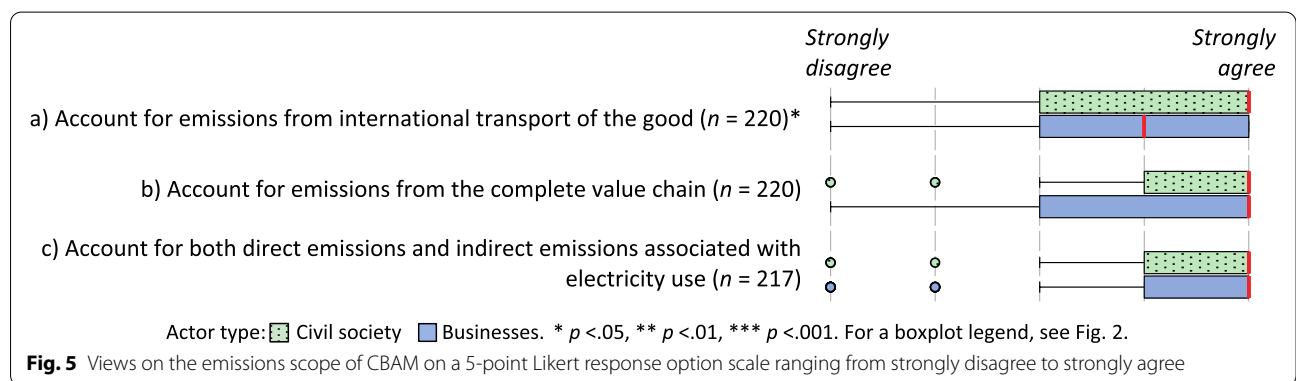
Finally, on the sixth salient CBAM design issue, the emissions scope, civil society respondents are more in favour of including emissions from the international transport of goods in CBAM than are business respondents (Fig. 5 (a), $p = .029$). However, both business and civil society express strong preferences for including emissions from the complete value chain as well as emissions associated with electricity use (Fig. 5 (b, c)). Supporting the survey results, the majority of analysed open-ended civil society submissions argue that the cost of both direct and indirect emission should be included and correctly accounted for (Carbon Market Watch, CEE Bankwatch Network). In contrast to the survey results, the qualitative submissions from business respondents show nuances in their views on indirect emissions. Some businesses argue that accounting for indirect emissions would be administratively complex. Others, such as Engie states that ‘both direct and indirect (linked to power generation) emission costs should be covered to ensure a level playing field amongst EU and non-EU producers’ (see also input from Eurofer). Similarly, Veolia argues for accounting for emissions of the complete value chain, stating that ‘enlarging the scope of the mechanism would encourage

the reincorporation of recycled materials in products and help to bridge the price gap between virgin and recycled materials. Doing so would also boost recycling.’

Discussion and conclusions

Both business and civil society recognize the need for CBAM as part of heightened climate ambitions and a reformed EU ETS. The majority of respondents in both camps support the instrument, despite the fact that energy intensive industries have constituted the dominant voice of opposition to carbon border adjustments in the past (De Ville 2012) and that environmental NGOs have often been critical of carbon markets as a climate policy tool (Markard and Rosenbloom 2020). Yet, we also show opposition to the proposal as well as notable divergences in views between the two groups of respondents on the CBAM objectives and other salient policy design issues, which need to be addressed to strengthen the political feasibility of agreeing on CBAM and to assure that the mechanism is effective in its objectives.

Agreeing on the primary objective will guide choices on the more detailed design options (Hall 1993). As it stands, there are some differences in opinion on what CBAM can and should do. According to our analysis, the focus of businesses is on the importance of protecting the European industry from global competition as a part of reducing the risk of carbon leakage, while civil society also stresses the need for climate mitigation more generally, both within the EU and in third countries, along with a need to support partner countries, especially the least developed and most vulnerable countries. Civil society puts more emphasis on the fact that CBAM could encourage non-EU countries to implement stronger climate policies and calls for using revenue from CBAM to support partner countries in decarbonizing their economies. The Commission has communicated that CBAM’s main objective is to reduce the risk of carbon leakage (European Commission 2021). In response, the European Parliament, while agreeing with the European



Commission, also articulated more clearly the additional goal of environmental stewardship and climate diplomacy with trade partners (European Parliament 2021).

Moreover, we find participants calling for other policy options in the open-ended statements (instead of, or to be implemented alongside, CBAM) depending on the perceived objectives, positioning CBAM within a broader conversation on climate and trade policies. As such, the business constituency is less inclined than civil society to view CBAM as *the* tool for addressing carbon leakage, resulting in some businesses expressing an outright opposition to the mechanism. While it can be argued that it is not uncommon for policy instruments to pursue multiple objectives, in the case of CBAM, some objectives may be mutually exclusive to achieve (Pirlot 2022). Thus, attaching a variety of purposes to one instrument may complicate its design and undermine its implementation and effectiveness (Cullenward and Victor 2020). Once CBAM is implemented, the variety of objectives and the CBAM design features will be important aspects for assessing its effectiveness.

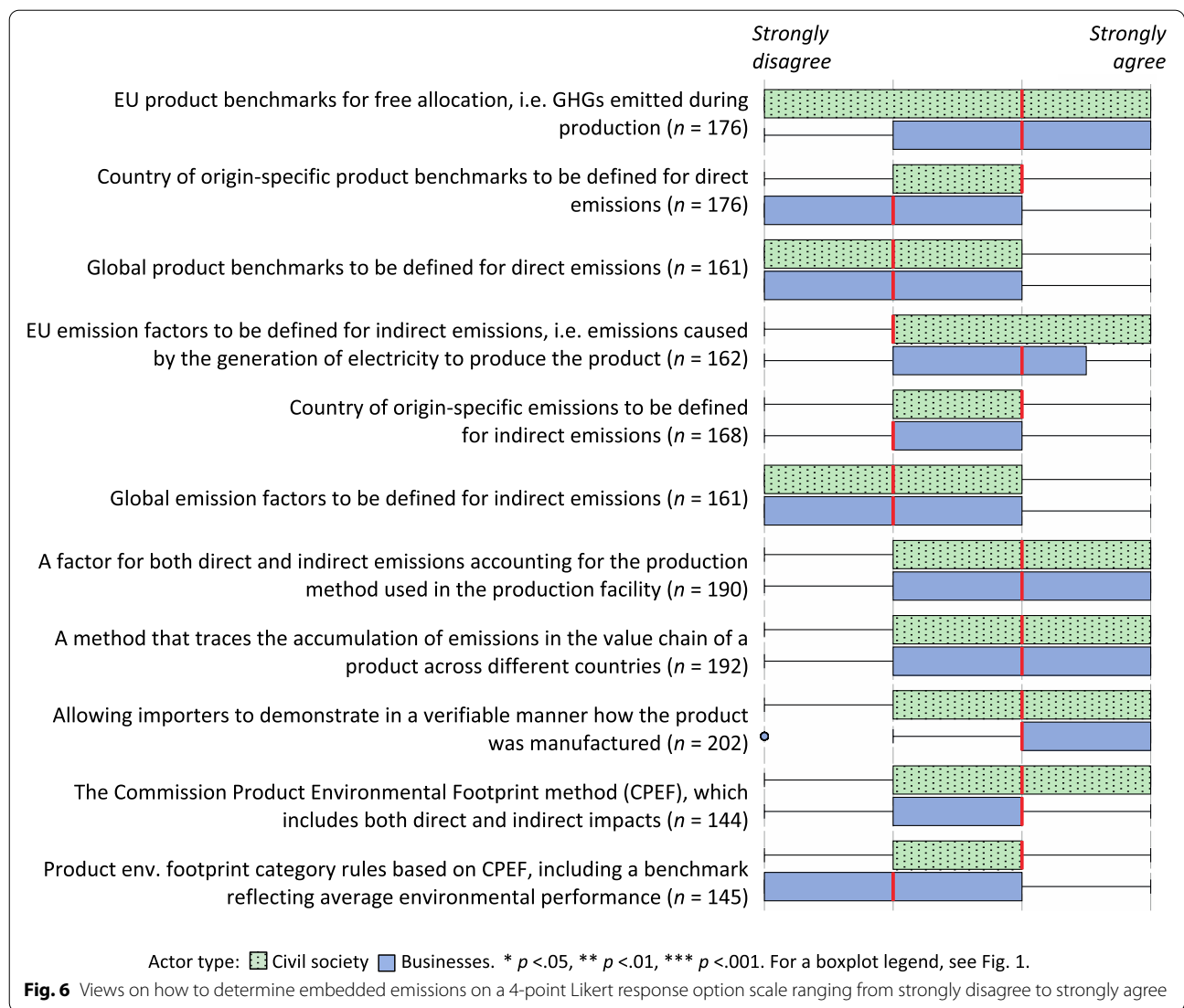
With regard to conflicting positions between business and civil society on issues related to the instrument design features, especially treatment of free allowances, exemptions for LDCs and inclusion of export rebates, there are unanswered questions concerning compatibility with WTO rules (van Asselt and Mehling 2020). The WTO framework on equal treatment would need to be reconciled with positions that call for implementing CBAM while maintaining free allowances (and instituting export rebates), which could for example require proportional reductions of CBAM (Böhringer et al. 2022). In other words, it is likely impossible for CBAM to fulfil the divergent expectations of business and civil society *and* be WTO compliant. The EU must therefore strike a balance. For instance, offering exemptions to LDCs—as called for by civil society to avoid repercussions for UN climate diplomacy, despite the limited share of CBAM-sectors in total exports from most LDCs to the EU—could incentivize businesses to relocate production or reroute trade via LDCs. An alternative to exemptions could be to reinvest CBAM revenues in modernizing LDC export industries (Böhringer et al. 2022), a reasonable compromise between the polar views of businesses and civil society. If a compromise is not possible between civil society and business on the treatment of free allowances while maintaining WTO compatibility, the decision to fully and rapidly phase out free allowances may mobilize a strong opposition from business and lead to the policy failure. From open-ended submissions, it is clear that businesses place a stronger emphasis on the importance of maintaining industry competitiveness, through *inter alia* preserving free allowances and instituting

export rebates. While civil society calls for a faster phase out of free allowances, while arguing that export rebates would go against WTO principles of equal treatment.

In sum, by analysing submissions to the European Commission's consultation process in the run-up to its release of a legislative proposal to introduce a CBAM, we find agreement of the use of a CBAM in order to increase climate action, but also divergent positions on key CBAM design and implementation issues. Ultimately, the different positions are a function of various interests among business and civil society organizations. While business seek to keep or expand market share through the decarbonization process, civil society organizations are concerned with strengthening climate action in the EU and abroad. The Commission and EU member states will have their own interests and priorities too. The challenge now is thus to design a coherent policy instrument that is fit for purpose and is clear on which problem it seeks to solve, in order not to risk undermining its effectiveness.

As the CBAM policy process is moving forward at a high pace, it is worth reflecting on the implications of Coen et al.'s (2021) findings that the policy process stages during which interest groups have best access to EU policymakers are amendments of the assigned committee of the European Parliament, followed by plenary amendments and final plenary votes in the European Parliament and the Council. The CBAM proposal recently passed the stage of committee amendments and the Council has adopted a general approach. Thus, both business and civil society still have an opportunity to have their say in the CBAM negotiations. While CBAM is a highly technical instrument, its success and survival will be determined by political struggles as much as by its economic rationale and value. Political barriers might create challenges for creating an effective CBAM, as evidenced by debates in other jurisdictions with emissions trading and carbon pricing instruments (Dellatte and Rudolph 2022). Our analysis showed where the main conflicts in the CBAM debate lie. The challenge ahead for the EU is to navigate the politically contentious issues and achieve an instrument design that is both politically feasible and generates the desired outcomes—whatever they are.

Instruments such as CBAM have a potentially important role to play in driving climate action. This paper has unpacked some of the intricate design issues that need to be settled through political negotiations. One limitation of the study is that it relies on secondary data at an early phase of interest formation. Positions have evolved through a dynamic process of interactions, but many of the identified issues are still being debated. While it is beyond the scope of this study to predict how the eventual CBAM will develop and how effective it will ultimately be, future research could draw



on the insights provided here to assess its design and effectiveness.

Future studies could also evaluate how business and civil society positions have changed and whether and how their policy positions have been taken up by the European Parliament and the Council. It would also be valuable to conduct an independent survey and compare responses between the two different types of respondents, as well as to conduct supplementary interviews about the nature and value of the public consultation on CBAM. We find that some issues, such as compatibility with WTO rules, were not brought up in the questionnaire, possibly suggesting a certain narrative pursued by the European Commission as a political actor. The Council has also flagged an interest in

establishing a climate club to supplement CBAM with a multilateral forum to discuss carbon pricing mechanisms (Council of the EU 2022, p. 21). This could be read as a sign that the Council acknowledges that other tools may need to complement CBAM to achieve the intended objectives on greater international cooperation. In future research, it would be interesting to dig further into such topics.

Appendix

It should be noted that there are other features of CBAM that will determine its success and are not included in the analysis in this article, including for instance details on emissions accounting and verification processes (Fig. 6).

However, we did not find statistically significant differences between the participants in the public consultation with regard to these issues. Both groups of respondents show the least support for global product benchmarks and global emission factors as measurement sticks of embedded emissions and the strongest support for allowing importers the possibility to demonstrate in a verifiable manner how the product was manufactured. These issues are likely to represent more of a technical challenge than need for a political compromise.

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Code availability

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Authors' contributions

Authors are listed in the alphabetical order. The author(s) read and approved the final manuscript.

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Availability of data and materials

Data used in the study is publicly available. Public consultation survey data is available for download here: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12228-EU-Green-Deal-carbon-border-adjustment-mechanism-_en.

Declarations

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Not applicable.

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The authors declare no competing interests.

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