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TRADE & INDUSTRIAL POLICY STRATEGIES

GLOBAL PERSPECTIVES ON THE EUROPEAN UNION'S CARBON BORDER ADJUSTMENT MECHANISM (CBAM)

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December 2023

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OVERVIEW

In 2019 the European Union (EU) introduced the Fit for 55 policy package, providing the groundwork for establishing and implementing key policies and regulations to ensure that the EU's net greenhouse gas (GHG) emissions are reduced by 55% by 2030 and carbon neutrality is achieved by 2050. The EU Carbon Border Adjustment Mechanism (CBAM) is a trade tool and mechanism aimed at decreasing overall carbon emissions by limiting the impact of carbon leakage. The initial phases of the EU CBAM were adopted on 16 May 2023. The implementation of the EU CBAM, along with the passed deadline of 1 October 2023, for the transition period, has sparked an outcry in the Global South. There are concerns that this move will disproportionately harm developing countries, which heavily depend on exporting specific CBAM-designated products to the EU. Brazil, South Africa, China and India have emerged as the most outspoken states criticising the EU CBAM's implementation.

This Working Paper offers an overview of how governments in the Global South are responding to the EU CBAM, in contrast to responses from developed nations. It examines the background and essential measures of CBAM in relation to the reactions of major transnational groupings and the effects of CBAM on primary trading partners. Furthermore, it aims to analyse the differences in responses and approaches to the EU CBAM from African countries, BRICS (Brazil, Russia, India, China and South Africa) nations, and developing countries such as the United States (US), Japan, the United Kingdom (UK) and Canada.

Throughout Africa, regional responses have been geared towards addressing disparities in trade. African states are highly reliant on exports of CBAM-designated products with aluminium, steel and iron, and fertilisers being the most affected. North Africa and Southern Africa are the most exposed to carbon taxes, which have prompted strong opposition to the EU CBAM from South African and Mozambican aluminium producers. In contrast, North African states such as Morocco have engaged in various mitigating measures, such as promoting product and industrial diversification. African countries and relevant stakeholders have largely established coalition-based approaches, arguing at multilateral institutions that the EU CBAM needs to be more flexible to not negatively impact growth and development. The African Group at the World Trade Organization (WTO) highlights that the implementation of carbon taxes to "level the playing field" further promotes disparities between industrialised countries, and that revenues collected through certification on dedicated products be used to support African states in decarbonising. Special differential treatment provisions and common but differentiated responsibilities (CBDR) are at the core of disputes and engagement at multilateral institutions. The rise of "carbon clubs" and the unilateral engagements from trading blocs have led to a rift in engagements on trade. Carbon clubs have become especially influential and refer to a group of countries and energy markets harmonising carbon, trade and energy policy to promote decarbonisation between members of the club. Carbon clubs are often exclusive as they aim to promote decarbonisation internally while disincentivising energy needs and trading of carbon-intense products from outside the club. African coalitions have accused the EU and Western countries of undermining the trust in multilateral institutions by establishing carbon clubs, whereas the EU argues that CBAM measures are meant to promote global decarbonisation.

The response and position of the founding BRICS member states has been echoed throughout the African Union and developing countries.¹ BRICS member countries have been notably outspoken about

¹ Initial engagements were undertaken by the founding BRICS member states of Brazil, Russia, China, India and South Africa. The 2023 Johannesburg declaration further outlines the expansion of BRICS to include Argentina, Iran, Egypt, Ethiopia, Saudi Arabia and the United Arab Emirates as of 2024 with only Argentina rejecting membership.

CBAM, arguing that it breaches the faith of promoting equitable trade and development in Article 6 of the 2015 Paris Climate Accord. BRICS country positions are anchored in the principles of CBDR and the special and differential treatment provisions outlined in the Generalised Agreement on Tariffs and Trade (GATT). The BASIC arm of BRICS (Brazil, South Africa, India and China) contends that the EU CBAM contradicts these principles and challenges the historical responsibility of industrialised nations to mitigate carbon emissions, as outlined in the 2015 Paris Agreement. Throughout BRICS, India has been notably proactive in engaging with various exposed countries, with the EU bilaterally and with fellow BRICS partners, aimed at approaching the WTO, arguing that the implementation and adoption of the EU CBAM does not justifiably adhere to multilateral trade norms. Furthermore, BRICS states contend that industrialised countries are using carbon taxes to protect local industries and promote protectionism under the guise of limiting carbon emissions and preventing carbon leakage.

In developed nations, a prominent strategy has been to act as carbon clubs to mirror carbon tax policies. The US, Canada, and the UK have each explored and participated in discussions on the regulatory structures aimed at embracing or endorsing carbon taxes in response to the EU CBAM. However, despite these governmental efforts, industries and firms have expressed significant concerns about the potential dual imposition of carbon taxes, particularly in relation to the EU, and whether this might confer unfair competitive advantages to specific economic blocs.

In the EU, there has been a common concern about the relatively brief transition period from March 2023 to October 2023 for handling administrative responsibilities. Industry representatives in Belgium and Germany, although generally in favour of the EU CBAM, have emphasised the necessity of extending the January 2024 and December 2025 deadlines, and reducing the administrative expenses associated with emissions reporting. Similarly, various responses within the EU have argued that the current iteration of the EU CBAM is not enough to limit carbon emissions, and that dedicated products need to be expanded beyond the scope of products outlined during the transition period.

In conclusion, the responses of developed countries concerning the Global South are indicative of two widely different approaches to addressing disputes emanating from CBAM. Throughout the Global South, there has been severe distrust in engagements with carbon clubs, leading to groupings such as the African Group at the WTO and BRICS to undertake coalition-based approaches at multilateral institutions. In contrast, countries throughout the Global North have accelerated domestic carbon taxation policies aimed at offsetting the impact of CBAM and mirroring its core policy tenets promoting protectionism.

ABBREVIATIONS

ACF	African Climate Foundation	
AfDB	African Development Bank	
AU	African Union	
BRICS	Brazil, Russia, India, China and South Africa	
CBAM	Carbon Border Adjustment Mechanism	
CBDR	Common but Differentiated Responsibilities	
COP`	Conference of Parties	
CTE	Committee on Trade and Environment (WTO)	
dtic (the)	Department of Trade, Industry and Competition	
EGD	European Green Deal	
ETS	Emissions Trading System	
EU	European Union	
GATT	General Agreement on Tariffs and Trade	
GDP	Gross Domestic Product	
GHG	Greenhouse Gas	
GSP	Generalised System of Preference	
IRA	Inflation Reduction Act	
LDC	Least Developed Country	
MPS	Mandatory Product Standards	
MSMEs	Micro, Small and Medium-Sized Enterprises	
MRV	Measurement, Reporting and Verification	
NAFTA	North American Free Trade Agreement	
TRIPS	Trade-Related Aspects of Intellectual Property Rights	
UK	United Kingdom	
UNFCCC	United Nations Framework Convention on Climate Change	
US	United States	
WTO	World Trade Organization	

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INTRODUCTION

Globally, governments are spearheading ambitious climate policies aimed at decarbonisation without sacrificing trade and development. These developments have led to concerns surrounding carbon leakage throughout global trade. Several countries are taking steps to address the risks of carbon leakage by implementing carbon border taxes. The European Union, in particular, has made significant progress in this regard with the adoption and implementation of the CBAM. The EU CBAM is a carbon border tax on embedded GHGs, with a particular focus on carbon-intensive industries, which has caused considerable uproar throughout the Global South. It is part of a broader comprehensive plan to promote and develop the European Green Deal (EGD) and is justified by the European Commission as a mechanism to halt carbon leakage.

Following its adoption on 16 May 2023, the EU CBAM has garnered significant criticism from governments and stakeholders throughout the Global South which will be most affected by its implementation. The transition phase, which started in October of 2023, will impact developing economies, most notably in the Global South. Similarly, the impact of CBAM has been central to global responses to climate change with Brazil, South Africa, China and India emerging as some of the most vocal states criticising the implementation surrounding the EU CBAM.

This paper analyses responses to the EU CBAM emanating from governments within the Global South in comparison to responses from developed countries. In reviewing the responses, the paper explores the background and key measures of CBAM in relation to responses from major international actors, and the implications of CBAM on key trading partners. Second, through reviewing the reactions of the EU CBAM from various actors, the paper aims to chart the key differences in responses and approaches to the EU CBAM by analysing approaches from African countries, BRICS and high-income nations (namely the US, Japan, UK, Australia and Canada). Finally, through reviewing the cases of North Africa, BRICS and developed countries, the paper outlines the role of multilateral groupings in relation to carbon clubs in responding to the effects of the EU CBAM It argues that it is important for least developed countries and countries throughout the Global South to comprehensively engage with country groupings while simultaneously assessing the impact of CBAM to address key issues affecting global trade dynamics.

Background

The EU's CBAM is a measure and mechanism to prevent "carbon leakage" and bolster global decarbonisation by imposing set emissions limits to imports in line with domestic goods (Davies, 2023). The European Union is aiming for a 55% reduction in GHG emissions by 2030 and full carbon neutrality by 2050 through the Fit for 55 package. Attaining these objectives will mainly hinge on the effective implementation of cap-and-trade via the EU Emissions Trading System (EU ETS). The EU CBAM would then motivate importers and foreign producers to curtail their collective carbon emissions. By leveraging both of these approaches, the EU aims to realise its previously stated climate targets.

Carbon leakage pertains to the potential scenario where businesses, due to cost considerations linked to climate policies, might relocate their production to countries with less stringent emission regulations. This shift could result in an overall rise in their emissions. The likelihood of carbon leakage is more pronounced in specific energy-intensive industries (European Taxation and Customs Union, n.d.) The introduction of CBAM has been accelerated despite the overall lack of evidence indicating that carbon leakage is a persistent challenge, coupled with concerns about "green protectionism" when import barriers are promoted under the pretext of undertaking ambitious

decarbonisation (Jakob et al., 2022). The general argument in implementing CBAM according to the European Union is that under the ETS domestic trade and production are required to operate in line with decreasing emissions (European Commission, n.d). Thus, decarbonisation would be geographically shifted, and in return carbon-intensive products would be imported into the European Union. In its initial stages, the EU CBAM will cover an arrangement of goods across the aluminium, fertiliser, cement, electricity, iron and steel, and hydrogen sectors alongside attached product articles such as iron ore and iron and steel-based products. (European Commission, 2023a)

As part of the strategy to limit GHG emissions, the implementation of CBAM will require emissions certification from importers. CBAM officially entered into force on 16 May 2023. This enforcement is coupled with a transitional phase, which began on 1 October 2023. Throughout the transition period up until full implementation (i.e. January 2026), importers have to report direct and indirect GHG emissions of products covered under the EU CBAM. After the end of the transition period, importers will have to declare the overall quantity of imports alongside direct GHG emissions, leading to the purchasing of CBAM certificates. Before the implementation period set to start in 2026, the European Commission would assess the viability of including new products within CBAM depending on general reporting performance throughout the transition period. After the initial implementation of CBAM in January 2026, the European Commission aims to expand CBAM to cover new sectors and products by 2034. The EU CBAM will only apply to exporting countries not attached to the current EU ETS with countries that are part of the ETS and European Economic Area being exempt from CBAM (Norway, Liechtenstein, Switzerland and Iceland) (European Commission, 2023a; Maimele, 2023b)

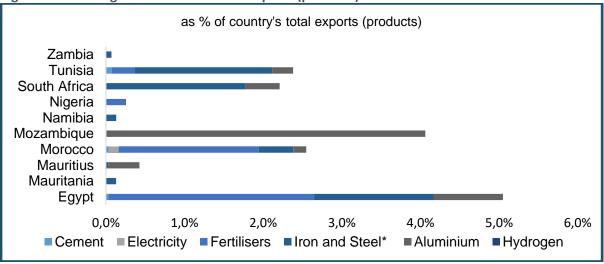
The rationale outlined by the EU is that these industries are carbon-intensive and are highly exposed to carbon leakage. However, as outlined by Davies (2023) CBAM disproportionately impacts developing countries due to the overall lack of exemptions for developing countries.

1. AFRICA AND THE EU CBAM

The EU's implementation of CBAM comes at a tumultuous period throughout Africa against the backdrop of promoting development while maintaining favourable trade with developed countries. The varying impact of CBAM throughout the continent has sparked a debate on whether the principles of common but differentiated responsibility and favoured nation status are relevant in addressing the issue of emissions. According to the EU, CBAM would limit carbon leakage, however, historically African states have been the lowest emitters. In response, African countries have responded through unilateral political and international country groupings. The overall aim of these groupings is to present a stronger and unified response. This section's objective is to provide an understanding of Africa's stance on CBAM and shed light and whether multilateral groupings have been able to provide a coherent and unified response to "green protectionism."

The EU in legislating CBAM has noted that developing countries would not benefit from emissions exemptions, which has significant implications for African countries. This leads to the impact of CBAM being disproportionate for low- and middle-income countries. Mozambique, Egypt, Morocco, Tunisia and South Africa are the most exposed states, mainly due to high carbon outputs (Baker et al., 2022). In an impact assessment study, the African Climate Foundation (ACF) notes that while CBAM would generally decrease trade, its effects on development vary significantly throughout the continent (ACF, 2023).

"Countries that were found to be particularly vulnerable included many smaller economies and LDCs [Least Developed Countries], including Djibouti, Liberia, Mauritania, Togo, Gambia, Sierra Leone, Benin, Guinea, Sao Tome and Principe, Senegal and the Central African Republic." (ACF, 2023). The impact on these African countries would lead to an overall decline in national gross domestic product (GDP) by 1.5% on a year-on-year basis from 2026.





As noted in Figure 1, Northern African states such as Morrocco, Egypt and Tunisia are highly susceptible to the implementation of the EU CBAM given high exports of CBAM products, with Mozambique being exceptionally vulnerable due to high aluminium exports to the EU. Similarly, South African iron and steel are notably vulnerable to the implementation of the EU CBAM, accounting for an average of 2% of total iron and steel. Similarly, as noted in Figure 2, the impact on GDP is disproportionately affecting countries relying heavily on a limited group of products, such as aluminium in Mozambique. The GDP impact trends also outline the significant impact on Northern African states, as indicated in both Figures 1 and 2.

Source: Maimele, 2023a.

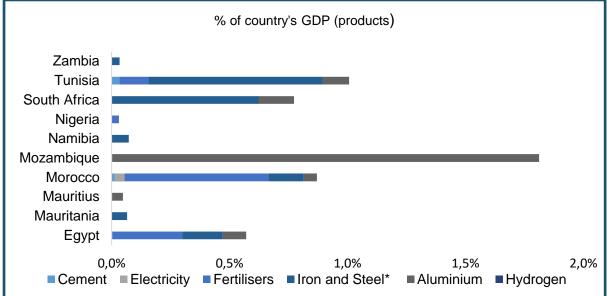


Figure 2: Proportion of CBAM-designated products as a percentage of GDP across African nations

Source: Maimele, 2023a.

1.1 The WTO and the African trade regime

Historically, African countries have grouped under the guidance of the Organisation for African Unity and its successor the African Union (AU) to present a unified response to trade disruptions and unfavourable practices. A precedent has been established under the AU that there needs to be trust in multilateral organisations to assess and rule on trade disputes. The rules-based order in relation to CBAM has been in dispute settlement and engagement at the WTO, of which the AU has been a historical proponent. Despite support for multilateral engagement, the recent adoption of CBAM has upended trust in multilateral engagements with the WTO.

The African Group is one of the largest trading blocs representing African interests at the WTO and has become a key proponent for reforms to uphold a rules-based multilateral system and rebuild trust between country blocs. Engagements and agreements by the African group have led to initiatives such as the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement being aimed at increasing the bargaining power of developing countries. Through the adoption of TRIPS, the African group has demonstrated dedication to promoting fruitful engagement rather than acting retaliatory (WTO African Group, 2023). However, despite its successes at WTO engagements, the organisation remains deadlocked with limited dispute settlement and enforcement mechanisms in operation, especially relating to inequality and disparities between members (WTO African Group, 2023; Ismail, 2022). In multilateral engagements, the African Group and the AU argue that different levels of development between member states need to be taken into account in multilateral engagements which has not been the case following CBAM (WTO African Group, 2023).

Despite benefitting from preferential market mechanisms, the African trade footprint remains relatively low and reliant on extractive resources. The response by the African Group within its WTO communique outlines a general lack of flexibility for African members to adapt or address key trade challenges in specific WTO agreements and policies (WTO African Group, 2023; Van der Ven and Luke, 2023). The EU CBAM displays a lack of flexibility by being applied universally without allowing African states to adapt and promote climate measures.

The African response to trade injunctions and disputes at the WTO has prominently centred around key arguments emphasising the need for flexibility. The EU CBAM transition period has not sufficiently

adhered to the ad hoc "band-aid" of special and differential treatment as a means to offset the implications of the EU CBAM on African member states. The African Group argues that "Several exceptions or derogations are available to developing countries in recognition of the specific economic, social, and administrative challenges they face" (WTO African Group, 2023).

At the WTO, notable pushback has been presented by members with an overall higher global trade volume. Both the WTO African Group (2023) and Van der Ven and Luke (2023) recognise that inflexibility in dispute settlement at the WTO is based on significant appeals. African participation, while noting some success in changing key agreements such as TRIPS, has been limited (Van der Ven and Luke, 2023). The EU outlined that its development of CBAM is in line with WTO trade rules; however, the absence of enforcement and relevant dispute mechanisms leaves Africa and developing countries vulnerable to carbon taxes and certification targeting key industries. The EU CBAM heavily affects key resources produced and exported by African member states. Given the relatively short period between its adoption on 16 May 2023, the start of the transition phase on 1 October 2023, and the start of actual implementation set for 2026, there is limited flexibility for African states and industries to respond to these carbon measures.

Apart from the African Group, the position of African countries has had limited multilateral representation. Disputes and disagreements between AU member states have led to limited engagement from the African Union on CBAM. Deadlocks and disharmony at the AU are mirrored in individual responses to CBAM being reliant on individual African leaders such as Presidents Macky Sally (Senegal) and William Rutto (Kenya) being the most vocal, whereas South Africa and Morocco have largely acted independently in reacting to CBAM. Ruto has been exceptionally outspoken stating that African industries are small and that carbon taxes aimed at promoting decarbonisation are counter-productive given Africa's already low emissions output and historically low emissions (Ruto, 2022).

The African Development Bank (AfDB) has been the most vocal group throughout the continent with engagements at COP 28 calling on the African Group and the African Union to respond decisively to CBAM (France 24, 2023). The AfDB in engagement with the global trade regime is an outlier given its vocal stance on promoting industrialisation and vehemently arguing for exemptions for African states regarding CBAM. At COP 28, AfDB President Akinwumi Adesina argued in strong opposition to CBAM stating that it would revert Africa to exporting raw minerals and undermine efforts to industrialise (France 24, 2023).

1.2 Southern Africa

Much research has been done in South Africa to reflect the vulnerability of the country as a result of CBAM implementation. The country is one of the world's most vulnerable economies to CBAM. A total of US\$2.8 billion (About R52.4 billion) of South African exports (based on 2022 data) are at risk in the short term, and this number is set to increase as the CBAM covers more and more products (Maimele, 2023a, Maimele 2023b). The iron and steel (including iron ore) and aluminium industries are particularly in jeopardy in the short term (Maimele, 2023b). Similarly, as noted in Figures 1 and 2, the Mozambican aluminium industry is highly susceptible to the negative implications of the EU CBAM. Total Mozambican aluminium exports as of 2022 are valued at US\$1.9 billion with US\$1.2 billion exported to the EU. Coupled with high exports the aluminium industry in Mozambique accounts for 1.8% of products in line with GDP (Maimele, 2023b; Monaisa and Maimela, 2023).

1.2.1 South Africa

South Africa is the largest African exporter of products and services covered under CBAM in Africa. Aluminium, steel and iron are especially vulnerable. In South Africa, CBAM has been met with varying

responses with government departments and officials being outspoken whereas industry responses have been mixed with concern and caution.

South Africa has in its response relied significantly on the Department of Trade, Industry and Competition (the dtic) outlining its intention to formally complain in tandem with responses from India and Brazil. The Presidential Climate Commission in a working paper in February 2023 highlighted that key responses would aim to challenge the validity of CBAM through legal disputes at the WTO alongside collaboration with trade groups such as the African Group.

Within the dtic submission to the EU, three common arguments have been made. First, the dtic highlights the importance of multilateral responsibility which mainly refers to CBDR. Second, the response from South Africa notes that CBAM transfers the burden of climate action towards developing countries reliant on extractive industries. South African government departments such as the dtic argue that CBAM contradicts the principles of common but differentiated responsibilities. Developing countries are expected to adhere to policies established by the EU despite limited capabilities to reduce carbon emissions sufficiently and justly despite the fact that are only marginally responsible for historical GHG emissions. (the dtic, 2023). Furthermore, the dtic argues that due to existing mechanisms and prolonged development, companies and stakeholders in developed countries (namely low-carbon-emitting developed countries) may benefit more from CBAM than developing countries (the dtic, 2023).

Last, in line with the WTO and multilateral approach, the dtic argues that "the WTO obligations are clear that no less favourable treatment of like products is permitted, and the WTO has identified likeness to be assessed at the border with no consideration of production processes and methods" (the dtic, 2023). In short, the dtic argues that products cannot be favoured in trade due to their likened characteristics without considering the production process.

Apart from the official submission to the EU, South Africa and the dtic have engaged significantly with India and Brazil in considering a formal dispute approach at the WTO to outline key concerns and push back on the (now passed) deadline of 1 October 2023 (Sen, 2023).

During the Climate Ambition Summit in September 2023, South African President Cyril Ramaphosa reiterated the government's response to carbon and trade barriers stating that "Global and regional trade mechanisms must enable products from Africa to compete on fair and equitable terms. Trade-related environmental tariffs and non-tariff barriers must be the product of multilateral agreements. They must not be unilateral, arbitrary or discriminatory." (Ramaphosa, 2023a). Throughout COP 28, Ramaphosa further echoed government concerns about CBAM arguing that unilateral carbon tax "reverses financial flows from the Global South to the Global North" (Ramaphosa, 2023b). Furthermore, Ramaphosa reiterated the government's response to upholding the principles of CBDR and that carbon taxes undermine these principles (Ramaphosa, 2023b).

South African engagements and disputes with CBAM stand in contrast with coalitions throughout Africa with most engagements on CBAM being centred around individual disputes and responses geared towards the WTO. These reactions have reiterated the impact of CBAM on Africa's most industrialised economy whereas fellow African states would not be as exposed to CBAM due to low levels of industrialisation. Furthermore, engagements with BRICS have been more fruitful than with African groups given the economic and bargaining power of larger economies such as China and India (BRICS, 2023).

1.2.2 Mozambique

Response from the government of Mozambique to the EU CBAM has been limited, despite the high exposure of the country to the trade measure (Hakeenah, 2022). Broadly, most responses have mainly

been aligned with South African responses; however, a notable distinction relates to engagements with the EU aimed at acquiring funding to offset the negative impact of the EU CBAM.

The most notable response to the EU CBAM arises from the aluminium industry, which accrues its high carbon intake from smelting acquired by South African power producer Eskom. The aluminium industry presented various claims to the European Union claiming that carbon emissions would decrease in the long term due to the adoption of "green aluminium" powered by hydropower due to the development of the Maphanda Nkuwa hydropower project (Machado, 2023). Similarly, industry leaders such as Mozal claim that the use of South African coal-generated energy, which adds to emission declarations, will only be used as a backup. South32, the only producer of code 72 aluminium products in Mozambique, stated that the company is in close engagement with EU importers and that it will "evaluate the potential level of impact and changes that may be required to our business processes, for example, on the reporting system" (Machada, 2023).

1.3 Northern Africa

One of the most vulnerable regions in relation to CBAM in Africa is Northern Africa largely due to extensive trade ties with the European Union. Morocco, Tunisia, and Egypt are primarily affected by CBAM, with the main focus being centred on the cement industry in Morocco and Tunisia, and the fertilizer sector in Egypt. The most notable response from North Africa arises from Morocco and Egypt. As a case study, the responses from North Africa stand out against that of the African Union and African groups.

Exposed exports from Egypt, Morocco and Tunisia reached US\$2.4 billion, US\$1.1 billion and US\$0.47 billion respectively in 2022 (Maimele, 2023a).

COUNTRY	SHARE OF TOTAL EXPORTS EXPOSED TO CBAM
Egypt	5.05%
Morocco	2.55%
Tunisia	2.38%

Table 1: Share of exports exposed to CBAM throughout North Africa

Source: Maimele, 2023a; Maimele 2023b.

In May 2022, before COP 27, Egypt unveiled its National Climate Change Strategy 2050 (NCCS 2050) – "which entails the promotion of energy-saving measures in industrial fields" (Mashino, 2023). Part of the goal is to decrease overall carbon emissions in key industries such as aluminium and fertilisers to ensure that overall exports to the EU have a limited impact on local producers. Following COP 27, Egypt, Morocco and Algeria started the process of establishing carbon credit markets which would apply to external exports from the EU (Mashino, 2023). Regional responses in North Africa mirror the objections of the African Group at the World Trade Organization.

Morocco has been notably concerned about the implications of CBAM on domestic production of cement, steel, iron, and fertilisers. At the *Morocco/EU relations: towards new perspectives facing climate challenges. The Carbon Border Adjustment Mechanism (CBAM) and its implications on the Moroccan economy* conference held on 7 February 2023, the president of the House of Councillors representing Morocco, Niama Myara, outlined the significant challenges that Morocco would face under CBAM, highlighting high exports to the European Union (Ertl, Haddad and Touati, 2023). The EU has promoted cooperation in developing sustainable finance measures aimed at diversifying Moroccan industries as a means to offset the impact of CBAM. The engagement between the EU and Morocco in the context of the Generalised System of Preferences (GSP) programme and development financing revolves around adapting to the adverse effects of the EU CBAM on Moroccan domestic industries. (Elgendy, 2023)

The key approach in Morocco's response in comparison to that of AU members is that the Moroccan policymakers have mainly been in bilateral engagements with the EU on how to adapt their local economy (Elgendy, 2023). Key responses discussed throughout engagements with the EU were whether the Moroccan government should develop its carbon tax to drive the diversification of the economy or use carbon rebates for exporters to support decarbonisation (Ertl, Haddad and Touati, 2023).

The case of Morrocco stands out in comparison to the unified and unilateral response presented by the African Group at the WTO. Morocco has actively engaged with the EU bilaterally to address key concerns aimed at offsetting the impact of CBAM. The current relationship between Morrocco and the African Union has further soured unilateral engagements.

2. BRICS AND THE EU CBAM

BRICS refers to emerging economies that have groups aimed at bolstering trade, economic expansion and general cooperation between its member states. BRICS, as a trading, economic, and political alliance, strongly opposes CBAM. Critics within BRICS countries argue that its implementation diminishes trust in multilateral organisations and is perceived as a mechanism that is promoting green protectionism while undermining efforts of developing states to industrialise and simultaneously decarbonise. The principled response of BRICS comes amid continued strained relations with multilateral organisations such as the WTO in promoting dispute settlements regarding the special developmental needs of BRICS member states. Further bolstering BRICS's bargaining power is the recent expansion of BRICS set for January 2024.

During COP 27 in November 2022, the BASIC group comprising Brazil, South Africa, India, and China, issues a joint statement expressing concerns about unilateral measures and discriminatory practices, including carbon border taxes, that could distort markets and erode trust among parties (DFFE, 2022; Gu et al., 2023). Expanding on the joint statement made by the BASIC group, BRICS in comparison highlights that policies aimed at promoting decarbonisation must adhere to principles entrenching equity and justice between trading partners (BRICS, 2023). CBAM would thus be classified as the imposition of trade barriers based on the pretext of tackling climate change (BRICS, 2023).

The key concerns that are echoed by BASIC and BRICS countries are inconsistencies in promoting existing multilateral frameworks such as the 2015 Paris Agreement and preferential treatment outlined by the WTO. India's Chief Economic Adviser, Venkataramanan Anantha Nageswaran, expressed concern that the European Union's carbon tax goes against the principles of the Paris Agreement's "common but differentiated responsibilities" (Chatterjee, Beniwal and Afonso 2023). This principle recognises that countries have varying duties and capacities to address the negative impacts of climate change (Chatterjee, Beniwal and Afonso 2023). This sentiment is central in the overall response of BRICS and BASIC members in opposing the conditions outlined in the EU CBAM. Ismail (2023) notes that global criticism regarding the EU CBAM is partly due to: "The inconsistency of the measures with multilateralism, the UNFCCC [United Nations Framework Convention on Climate Change] and WTO principles of common but differentiated responsibilities and respective capabilities (CBDR)."

In addition, BRICS has been outspoken about the lack of trust in multilateral norms and international law pertaining to trade under CBAM. Common engagements have led to individual BRICS members questioning the legality of CBAM and aiming to raise concerns at the WTO. India has spearheaded negotiations and discussions on approaching the WTO which would lead to launching a formal dispute arguing that importer rebates aimed to offset CBAM imports are discriminatory against developing economies (Overland and Sabyrbekov, 2022). In short. BRICS countries argue that trust in multilateral

agreements such as the 2015 Paris Agreement has eroded due to CBAM disregarding initiatives aimed to decarbonise throughout the Global South.

BRICS engagements have been largely conducted at the WTO and the Conference of Parties (COP) with bilateral and multilateral engagements centred around compliance and respecting multilateral institutions. Despite historical opposition to the WTO and liberal multilateral institutions, BRICS countries have been surprisingly keen on settling disputes through these institutions rather than forming carbon clubs. Multilateral engagements have been focussed on the articles of trade under the General Agreement on Trade and Tariffs where BRICS countries specifically India and South Africa have argued that CBAM may violate articles of trade regarding internal and external tariff charges outlined in GATT (Presidential Climate Commission, 2023:9). BRICS reactions have thus far been to promote hawkish mediation and engagements surrounding the trade dispute mechanism at the WTO. Opposition to CBAM from BRICS states at multilateral and bilateral engagements have been met with notable resistance. EU engagements have been limited in multilateral dialogue with CBAM considered an internal measure by the EU Commission despite its global impact (Davies, 2023; WTO, 2023b).

2.3 China

China has been highly critical of the EU CBAM and has on multiple occasions publicly and privately spoken out against the policy. Chinese criticisms of CBAM are based on a historic precedent of opposing green protectionism. This position was solidified in engagements at the WTO's Committee on Trade and Environment (CTE) in March 2023. The Chinese delegation argued that various reporting requirements under CBAM are discriminatory. Within their formal complaint at the CTE engagement, the Chinese delegation argued that the implementation of CBAM is not compliant with WTO standard rules and is a form of green protectionism, which is against the spirit of Article 6 of the Paris Agreement (ECEEE, 2023; European Union, 2023; WTO, 2023a).

In conjunction with various BRICS countries, China has reiterated that the implementation and deadlines presented by the EU CBAM are highly discriminatory and unjust against developing nations. Following the BRICS summit in August 2023, Chinese officials highlighted that the adoption of CBAM affects industries that are highly capital-intensive and profitable for developing countries, decreasing the overall competitiveness of iron and steel, aluminium, and carbon-reliant industries rather than promoting sustainability through development and investment (Tu et al., 2021; BRICS, 2023).

Chinese industries have raised concerns about the reporting mechanisms of GHG emissions outlined in the EU CBAM (Tu et al., 2021). The most notable criticism relates to the measuring of GHG emissions for products that have multiple inputs, arguing that there is no universal carbon measuring mechanism leading to high uncertainty among high carbon-producing industries throughout the transition period.

The overall Chinese response has been prefaced on the negative impact of the EU CBAM on developing nations. In alignment with fellow BRICS members, China has argued that by "levelling the playing field" the EU is disproportionately impacting developing countries that rely on exports of key identified industries, which acts against the principles of common but differentiated responsibilities and special and differentiated treatment.

2.4 Brazil

Brazil has been outspoken against the EU CBAM. Within its response to the transition period, the Brazilian mission to the European Union argued that the rapid implementation of the transition period does not allow industries throughout developing economies to adjust to carbon taxation, as was afforded to EU industries (Government of Brazil, 2023). This is due to the transition notice period being

of short notice, benefitting EU industries due to their existing compliance under the ETS which CBAM aims to mirror and bolster (Government of Brazil, 2023; Moreira, 2021).

The Ministry of Foreign Affairs further raised concerns that the EU CBAM would undermine existing multilateral trade mechanisms established under the WTO which would discriminate in favour of European producers (Government of Brazil, 2023).

In part of its response the Ministry of Foreign Affairs noted: "Despite the statements presented by the European Union that the mechanism would not violate the rules of the multilateral trade system, there are elements in the legislative proposal that indicate that the measure, either in its current design or in its implementation, could violate the obligations assumed by the European Union in the trade sphere". (Moreira, 2021).

In short, for Brazilian authorities, the CBAM may run in contrast to the principles of the Paris Agreement based on the perceived ambition to reduce emissions by ranking countries and singling out specific products based on their carbon contents despite the overall carbon emissions occurring within production. Brazil noted that this ambiguity and taxation in contrast with the principles of the Paris Agreement is not viable in limiting carbon leakage due to the historical responsibilities of developed nations (Government of Brazil, 2023). Furthermore, Brazil argues that double standards are being applied to exporters, given that the EU had a significant advantage in adapting to the impact of CBAM.

2.5 India

The Indian government has been spearheading multilateral and bilateral engagements aimed at combating CBAM. India has been proactive in engaging with BRICS member states in forming a unified response from the Global South. These have resulted in multiple statements from Minister of Commerce Piyush Goyal urging developing nations to oppose CBAM unilaterally. The Indian government has repeatedly spoken out against CBAM and argued that developing countries need to formulate a unified response and engage in existing multilateral dispute settlement mechanisms. This is reaffirmed with the position of the Indian government to lodge a complaint against the EU challenging certain requirements outlined in the WTO and highlighting concerns about the short implementation of the transition phase (Kumar and Arora, 2023).

The reaction of India is premised on two key arguments, namely crafting local carbon taxation policies and engaging multilaterally to address disputes. First, India is looking at establishing an Indian CBAM to respond to European certification requirements. Second, key industry and government actors have engaged with developing nations and the WTO outlining the unjust and discriminatory nature of the EU CBAM on high-value carbon-intense sectors (Kumar and Arora, 2023). The Indian government has aimed to establish a club of partners that would be willing to launch a formal complaint at the WTO. In engaging with fellow BRICS members, coupled with Thailand and Taiwan, India aims to extend the implementation period of CBAM while simultaneously limiting its scope (Suneja, 2023).

The Indian response was outlined during the First India-EU Trade and Technology Council in 2023. Throughout these bilateral engagements, the Indian Ministry of External Affairs reaffirmed the Indian approach of engagement with multilateral institutions regarding key disputes in relation to the CBAM. (Ministry of External Affairs, 2023) The position outlined throughout the event was that the Indian government and relevant stakeholders did not consider the consequences of the EU CBAM, which would have given industry stakeholders enough time to adapt to new administrative processes. (European Commission, 2023c, Ministry of External Affairs, 2023). Similarly, the Indian government highlighted its concerns surrounding protectionism under the pretext of decarbonisation. To address

the issue of the CBAM and various other trade challenges, the Indian government engaged with the EU to promote a ministerial committee at key multilateral institutions such as the WTO.

Further developments are requests by the Indian government to exempt micro, small and mediumsized enterprises (MSMEs) from CBAM. Minister Goyal highlighted the negative impact of the EU CBAM on MSMEs and the need for exemptions (Press Trust of India, 2023a). There have been considerations surrounding industry leaders that India should implement complementary carbon taxes despite Goyal noting that it is not currently under consideration (Press Trust of India, 2023b)

Apart from the CBDR approach outlined by India, a key concern raised is that carbon border measures are selectively applied to trade-exposed industries. The carbon measures as argued by India are discriminately applied to developing nations. LDCs have not had the opportunity to adapt to carbon taxation that was afforded to EU exporters and Importers under the ETS, leading to higher risk and decreased exports due to CBAM. (Baker et al., 2023)

3. DEVELOPED NATIONS AND THE EU CBAM

Following the adoption of the EU CBAM in May 2023 the response from high-income countries outside the EU has varied significantly. Canada, Japan, The United Kingdom and the United States have been responding notably by reviewing domestic policies aimed at protecting local industries. Canada has, however, been largely erring on the side of caution given that CBAM might sour trade relations with its North American Free Trade Agreement (NAFTA) partners (Colas, 2023). A common trend among developed nations is to mirror the EU's approach to carbon taxes. Policies in developing countries such as Canada and the United Kingdom have notable similarities with CBAM.

Box 1: Coalitions and carbon clubs

Coalitions and carbon clubs involve a group of countries that are pursuing or engaging in similar policies and promoting collaboration which would ultimately lead to linking markets. Further expansion of the development of trading blocs is a recent trend of the establishment of carbon clubs, in which a group of countries link up to establish carbon markets. Assous et al. (2021) sums up that a key feature of carbon clubs is to "penalise" non-members through uniform penalties such as CBAM. The EU has through CBAM engaged as both a carbon club and a trading block whereas responses to CBAM have been largely conducted by coalitions and country groupings.

The emergence of trading blocs and carbon markets has been indicative of continued disagreements surrounding the impact of CBAM on developing countries. Throughout the Global South, and specifically BRICS, CBAM represents a carbon club that implements disproportionate penalties on developing nations aimed at justifying protectionist policies and eroding the trust of multilateral engagements (BRICS, 2023; Omarjee, 2023). These concerns were raised throughout COP 27 and COP 28 with opponents arguing that CBAM would be devastating for developing economies (Omarjee, 2023). Opponents of carbon clubs have generally highlighted that protectionist policies established by carbon clubs often erode trust in multilateralism given that it disproportionately affects developing countries, especially through undermining the trust of Article 6 of the UNFCCC Paris Climate Accords regarding common but differential responsibilities (Burke, 2021).

Proponents of carbon clubs have argued that harmonising policies would incentivise countries outside of the carbon club to adopt similar policies accelerating collective carbon action (Assous et al., 2021). The promotion of collective carbon action has been key in the responses of developed countries.

As noted further in this section, the overall response to CBAM is largely based on carbon pricing and the formation of carbon clubs. High-income economies have mirrored core elements from the EU CBAM such as reporting direct and indirect emissions to offset the impact of CBAM on exporters. This relates to establishing transition periods for different carbon taxes. Canada has outlined that carbon pricing for importers and relating to local production would increase at an average rate of 15 Canadian dollars a year (Government of Canada, 2021). In contrast, Japan and Canada, given their strong trade relations with the EU, have erred on the side of caution and have not been notably vocal about the impacts of the EU CBAM. Box 1 highlights how developed countries are more susceptible to forming carbon clubs and adopting carbon taxation policies.

3.1 United States

The US has expressed concerns about CBAM, with US Presidential Envoy John Kerry criticising carbon pricing, arguing that it has serious negative effects on "free trade" and on industries among EU and US-allied nations (ECEEE, 2021; Reuters, 2021). The criticisms from Kerry are mirrored by US firms with the broader position being that low-carbon producers will have a competitive advantage in key industries above high-carbon producers which would be unable to compete with European producers (Reuters, 2021). While the US response publicly has been outspoken against CBAM, legislators have taken a keen interest in replicating key elements from CBAM.

These mechanisms have been scattered among various legislative bills such as the Clean Competition Act, the Inflation Reduction Act (IRA) and the PROVE IT Act. The adoption of these Acts has led to tensions with key US trading partners, with notable dissatisfaction among US exporters and the US government about the EU Green Deal and CBAM. The IRA highlights various measures to address issues such as decarbonisation and carbon leakage by promoting the localisation of designated CBAM-related products, despite limited evidence of carbon leakage (Davies, 2023). Similarly, the Clean Competition Act aims to expand the scope of carbon taxes to include 25 sectors in addition to the sectors covered under CBAM. These legislative frameworks address key issues raised by the US government in relation to the EU CBAM with the most notable being the relatively short transition period and limited reporting related to third-party GHG producers (FuelCell Energy, 2023).

Following the model of carbon taxation outlined by the EU, the most impactful response arises from the PROVE IT Act. In June 2023, The PROVE IT Act was introduced to the US Congress. The Act calls for a study on the carbon intensity of specific products in the US and select other countries. If enacted, this legislation would facilitate the collection of product-level emissions data, which is crucial for implementing a US CBAM (Pomerleau, 2023). As of November 2023, the PROVE IT Act is still in deliberation. The PROVE IT Act attempts to provide a domestic solution to concerns raised by US firms in relation to the EU CBAM, namely the cumbersome tracking of third-party GHG emissions and increasing overall bureaucracy costs (E-liability Institute, 2023; Latham & Watkins, 2023). The bill has been seen as a potential tool to impose carbon tariffs on carbon-intensive products (Latham & Watkins, 2023). Furthermore, carbon-loaded industry stakeholders have raised concerns about the clarity of the PROVE IT Act and CBAM. Stakeholders are broadly concerned that they would have to pay extra administrative costs to report local emissions, both when exporting from the US and when exporting from the EU through their subsidiaries. This would lead to circumstances when double reporting and possible double penalties would apply to CBAM designated products. The concern is thus that there is a possibility of being double taxed based on total emissions outputs.

The US's overall response is rooted in a retaliatory domestic strategy, which mainly stems from dissatisfaction with the EU CBAM. US firms have also raised concerns regarding overall reporting periods and have raised concerns regarding competitiveness. The general argument is that CBAM

limits the competitiveness of US firms in relation to EU firms, disproportionally affecting US mediumsized exporters in fossil fuel-based industries (FuelCell Energy, 2023). As a case study, the US highlighted the adoption and promotion of carbon clubs above multilateral engagements. Through the PROVE IT, IRA and Clean Competitions Acts the Biden administration aims to spearhead the development of climate clubs to bolster trade and development between countries that have implemented carbon taxes (Kaufman and Saha, 2023; Jakob et al., 2022). Engagements on CBAM have been limited to bilateral engagements with no key inputs or representation at the WTO about CBAM and developing countries.

3.2 United Kingdom

On 30 March 2023, the government of the United Kingdom announced a second round of consultations on implementing carbon taxes to "address carbon leakage risks to support decarbonisation" (Environmental Audit Committee, 2021). The second round follows the initial engagement by the Environmental Audit Committee in 2021 which reviewed the risks and opportunities in implementing a UK CBAM. The outcome of these deliberations has led to the discussion of implementing a UK CBAM by 2027 (Hunt and Treasury, 2023).

While initially lagging, the implementation of a UK CBAM, which would apply a carbon price to UK imports with high embodied emissions, has accelerated throughout 2023. The application of a UK CBAM would apply to sectors, importers and exporters outlined under the UK Emissions Trading Scheme adopted in alignment with the EU ETS. The key determinant in the UK development of CBAM in relation to the EU is that the UK CBAM has expanded on the scope of certifying emissions outputs (Newham, 2023). Cement, chemicals, iron and steel, paper and pulp and ceramics are included noting an expansion of the UK CBAM (Hunt and Treasury, 2023).

Despite its expanded portfolio, the initial proposal has various similarities to the EU CBAM. Yet, stakeholders highlighted challenges in complying with both the EU and UK CBAMs, especially if reporting standards are not harmonised (Newham, 2023). Similarly, stakeholder responses recorded by the Environmental Audit Committee in 2021 noted that the duplication of processes would lead to an increase in emissions compliance costs on both imports and exports despite the UK CBAM being branded as only applicable to imports (Environmental Audit Committee, 2021).

Despite stakeholder concerns surrounding administrative burdens that would arise from a UK CBAM, support for carbon taxation has been constant with respondents to the Environmental Audit Committee and Treasury's preliminary study being highly in favour of establishing a carbon border adjustment mechanism citing the possibility of future carbon leakage and to conform with existing mechanisms throughout the EU (Hunt and Treasury, 2023).

In conjunction with the UK CBAM, the United Kingdom is in the process of establishing a mandatory product standards regime (MPS) in which emissions tracking should be standardised among industries and specific carbon-intensive products such as iron and steel. The Environmental Audit Committee is deliberating on whether the MPS should be implemented in tandem with the UK CBAM to further promote decarbonisation (EY Global, 2023). The MPS has, however, mainly remained unaddressed by key industry stakeholders given the increased attention on the UK CBAM (EY Global, 2023).

The overall response of the United Kingdom has been to accelerate carbon taxation mechanisms with the goal of full implementation by 2027. While initially limited to the MPS and Environmental Audit Committee the involvement of the Treasury has cemented CBAM as a core carbon tax policy, expanding the scope of the UK ETS that would impact exporters from trading partners.

3.3 Japan

Similar to other developed countries, Japan has been observing the EU CBAM with keen interest. The Japanese Ministry of Trade and Industry has noted that a Japan CBAM is under review as a response to the global trend of developing mechanisms to prevent carbon leakage.

The most significant reactions have arisen from specific iron and aluminium exporters within Japan (Maekawa, 2023; Van der Vorts and Rousseau, 2022).

While Japanese manufacturers have raised specific concerns surrounding the EU CBAM and its implementation, the official government, through the Trade and Industry Ministry of Japan, stated that implementation of the transitional period of the EU CBAM "does not immediately constitute a violation of the WTO rules" (Maekawa, 2023).

3.4 Canada

In 2020, the Canadian government outlined its intention to explore the use of carbon border taxes as a strategy to phase out the use of carbon-intensive products. To support this, The Canadian Department of Finance outlined that as part of Canada's Climate Actions for A Healthy Environment and a Healthy Economy plan, the Canadian government would increase carbon pricing by CAD15/tonne per year as a measure to limit the overall increase in emissions in alignment with the Paris Agreement (Government of Canada, 2021). Canadian carbon taxation broadly addresses and mirrors the EU CBAM in some respects with notable debates around certification. The debates on rebates and certification are key to further caution, especially given the high levels of trade in high-carbon and fossil fuel-reliant industries between Canada and the European Union.

In general, the approach of carbon taxes initiated by the Canadian government has been relatively cautious. As noted by the Canadian Department of Finance, the government will continually engage with international partners (Government of Canada, 2021). The level of engagement is mainly around the backdrop that implementing carbon border adjustment mechanisms would lead to opposition and backlash from key trading partners, such as China, India and the United States. In reviewing a proposed Canadian carbon border adjustment mechanism and Canada's response to the EU CBAM, Bernard Colas (2023) notes that: "For the time being, Canada has indicated that products from jurisdictions that have a higher or equivalent carbon tariff should not be affected by its mechanism. This could encourage the EU and possibly the US to harmonize their systems with Canada or to offer recognition certificates. The implementation of such a system will also increase Canada's leeway in negotiations with other trading blocs and should ultimately increase the competitiveness of Canadian firms."

The carbon border adjustment mechanisms outlined by Canada, as of October 2023, have not progressed as far as the EU CBAM. The most notable concerns by both the Department of Finance and external observers are the implications of CBAM for existing free trade agreements, including NAFTA.

3.5 Australia

In August 2023, the Australian government began assessing the viability of carbon taxation for domestic products. A notable distinction is that the proposed implementation of carbon taxes is prefaced with Australian reforms to its "safeguarding mechanisms" which started on 1 July 2023 and set emission limits on the largest Australian factories and facilities (Bowen, 2023). The development of Australian carbon taxes, as noted in the country's response to the EU CBAM, is based on existing carbon regulations with the primary goal of addressing carbon leakages.

The Australian response to the EU CBAM is aimed at bolstering its domestic mechanisms while acknowledging the need for carbon taxes. Within their official response to the European Union, the government of Australia outlined pre-existing mechanisms implemented in the country such as carbon tracking and emissions reporting are already prepared for CBAM regulations.

The most notable comment on the EU CBAM from the Australian government is "EU's recognition in the draft implementing regulations of third-country Measurement, Reporting and Verification (MRV) schemes" which addresses a key criticism from Australia about multiple reporting mechanisms and carbon verification (Government of Australia, 2023). It is due to the MRV schemes that Australia has been unsupportive of the EU CBAM. The Australian government has been hesitant to criticise CBAM, which leads to confusion on whether government stakeholders support or oppose CBAM.

The Australian government has specifically focussed on the implications of carbon leakages. The Australian Minister of Climate Change and Energy stated that the proposed development of an Australian CBAM would combat carbon leakage by regulating key industries where carbon leakages are most likely to occur (Bowen, 2023). In doing so, the Australian government has expressed the need to develop local carbon taxation mechanisms in line with multilateral guidelines and rules (Bowen, 2023).

4. CBAM THROUGHOUT THE EUROPEAN UNION

Responses throughout the European Union have varied significantly with middle-income countries and industries in steel and electricity production raising concerns surrounding the implementation period and the overall legality of CBAM. Despite widespread opinions within the EU favouring the EU CBAM, various countries and industries have expressed concerns about the implementation and ratification of CBAM. As far as carbon clubs are concerned the EU has been at the forefront in promoting unilateral carbon taxation and pricing policies as a means to promote collective climate action. As the largest climate club, the cases of Germany and Belgium are explored in this section largely due to the overwhelming influence and responses of these countries relating to CBAM.

The broader position of the EU CBAM throughout the EU has been widely accepted by EU member states and its affiliates in the European Economic Community. Common complaints regarding CBAM throughout the European Union have been from importers and legislators who highlighted that the public commenting period and the beginning of the transition period that was presented before the 1 October 2023 deadline negatively impacts competitiveness throughout downstream production given the reliance on importing carbon-dense products, such as steel, iron and aluminium. Despite criticism of the reporting period and timelines the EU CBAM has broadly been promoted and accepted by European stakeholders and governments. This section briefly outlines the stances and responses to the EU CBAM from industry stakeholders in Germany and Belgium.

A notable example of industry criticism regarding the EU CBAM arises from the International Air Transport Association whose head stated that the EU is "anti-aviation" due to the possible expansion of CBAM (Euractiv, 2023). While CBAM does not explicitly cover aviation, concerns within the industry are based on the high use of iron, steel, aluminium and hydrogen throughout the aviation value chain. The EU has extended carbon pricing to jet fuel for flights within its economic zone; however, concerns remain about the broader value chain impact as CBAM would cover products that are primarily imported from developing countries. This is noted with concerns surrounding aviation production, with aircraft highly reliant on imported steel and aluminium from China and India (Rossetto, 2023). In response, the EU introduced a new mandate requiring airlines using EU airports to use a rising percentage of sustainable aviation fuels beginning in 2025 (Rossetto, 2023). The aviation industry has expressed concerns that the implementation of the EU CBAM would threaten EU production.

Box 2: Cost of CBAM on the global aluminium sector

The designation of aluminium under CBAM has been met with alarm from stakeholders throughout the EU and developing countries. Concerns have surprisingly emerged from the aviation industry which uses cast aluminium in the production of commercial aeroplanes. European manufacturers primarily import raw aluminium for processing. European aluminium smelting in contrast is highly energy intensive, hence imports of processed aluminium are expensive in comparison to localised smelting. The EU is the highest emitter of emissions in relation to Aluminium casting while simultaneously lagging in raw bauxite and aluminium production (IAI, 2023)

China is the continued outlier in terms of CBAM-designated products. China produced a total of 40 thousand metric tonnes of raw aluminium in 2022 accounting for more than 58% of total global production (IAI, 2023). Despite the size of Chinese aluminium production and share of exports, stakeholder responses have largely been aligned with iron and steel. Generally, Chinese stakeholders' concerns arise from increased administration costs linked to emissions tracking for exports to the EU. These concerns have been mirrored by stakeholders throughout the aviation industry. They argue that the import costs of aluminium are detrimental to the local industry and that there should be exemptions for imports from developing countries – going so far as to brand the EU as deliberately decreasing the competitiveness of aviation manufacturers (Rosetto, 2023; Eurativ, 2023).

Sector responses throughout developing countries have been outspoken on the lack of clarity. Three common themes have informed stakeholder reactions. First, throughout developing countries raw aluminium exporters highlight that CBAM is inflexible in supporting SME exporters and providing exemptions (AIC, 2023). Second, it is unclear on the reporting of indirect emissions which should be open to differing reporting methodologies. Third, is the need to promote a unified response by bolstering the International Aluminium Institute to better provide technical support for calculating emissions (ABAL, 2023).

Embedded emissions have been at the forefront of sector responses due to confusion on whether by-products, scrap and waste are classified under zero embedded emissions. Taking repurposed scrap into consideration, carbon emissions reports would be artificially inflated negatively impacting exporters. Stakeholders have thus argued that these should be assigned as having zero embedded (ABAL, 2023; AIC, 2023).

The broader reaction from aluminium stakeholders is that there is limited information and time to adapt to reporting and production requirements presented in CBAM. These concerns are echoed by the more impacted and vocal iron and steel sector stakeholders. Similar value chain structures reflect that indirect emissions and embedded emissions have alarmed aluminium exporters.

4.1 European Commission

The governing body and regulator of CBAM, the European Commission, has defended the mechanism vehemently at key multilateral institutions against a backdrop of criticism from developing countries. The EU's brazen response is reflected in its engagements throughout the WTO and bilaterally with developing nations. Despite indicating willingness to support developing countries to offset its negative impacts, most of the EU's responses have been aimed at easing the concerns of major trading partners such as China and India.

At the 2023 Trade and Environment Week at the WTO, the European Commission reiterated that it considered the implementation of the EU CBAM to be in line with existing WTO frameworks and the GATT and is an essential mechanism to both provide decarbonisation among EU member states and promote decarbonisation among key trading partners such as China and India (European Union, 2023; WTO, 2023b). In response to concerns raised by developing states, the EU raised the existence of

mechanisms, such as the GSP scheme, to support developing countries through trade development (WTO, 2023b). The EU reiterated that supporting trade facilitation will be in tandem with the implementation of the EU CBAM. In response to criticism surrounding common but differentiated responsibility, EU representative David Boublil rejected claims that the EU CBAM is "punishing" developing countries by implementing carbon taxes. He argued that in the absence of CBAM, carbon leakage towards developing countries would occur (WTO, 2023b, European Union, 2023). Inherently, the overall response from the EU has been that implementation of carbon taxes bolsters revenue internally but also limits the negative impact of shifting carbon-heavy loads and climate responsibility onto developing countries by certifying carbon emissions on imports (European Union, 2023). The EU has similarly noted that it is taking into consideration the broader impact on high-risk countries by promoting export diversification in line with WTO guidelines.

4.2 Germany

Germany has been outspoken in favour of CBAM, arguing that through a unified approach the EU would be able to offset carbon leakage despite minimal evidence that CBAM would address these concerns (Jousseaume et al., 2021). The German government has, however, had little public engagement with various statements from government officials alluding to engagements under the EGD spearheaded by the European Commission.

Keuhner et al. (2022) in their survey of German stakeholder perceptions of an EU carbon border adjustment mechanism outlined that there was broad support from industry stakeholders. However, key concerns were raised regarding the import of mineral products and the period for GHG reporting starting in October 2023. The most notable objections arose from commodity-based industries, raising the need for exemptions for countries with existing carbon taxing systems alongside the extension of the transition phase. Industry stakeholders, such as wind technology manufacturer Nordex, have expressed concern that the short transition period increases bureaucratic costs which may offset any rebates or subsidies provided by the EU (Nordex, 2023). The German automobile industry, which is notably exposed for its use of carbon-intense imports ranging from steel to aluminium, broadly supports the EU CBAM but remains concerned about the cost implications of GHG standards and administrative reporting on imports (Keuhner et al., 2022).

4.3 Belgium

The general response from the Belgian government and stakeholders has been in favour of CBAM, arguing that it is essential to prevent carbon leakage and promote collective action. Government responses have been relegated to the EU Commission generally stating that the government supports most EU initiatives aimed at promoting CBAM.

Overall, Belgian companies and firms support the regulatory implementation of the EU CBAM despite the relatively short period affirmed for EU importers. However, Belgian think tanks, industry groups and individual Belgian legislators have been particularly vocal, notably in criticising the regulatory reporting mechanisms which came into effect in October 2023.

Further criticism has been around its effectiveness in preventing carbon leakage. In its response to the EU CBAM, the Environmental Coalition on Standards stated: "The uneven treatment among product categories which is not only unfair and inconsistent also removes the incentive to reduce this segment of the carbon emissions." This refers to the initially limited scope of the EU CBAM to aluminium, electricity, steel and iron, cement and fertilisers, which would not offset carbon leakage (ECOS, 2023).

Similarly, the Sandbag Climate Campaign in its submission to the EU outlined concerns about carbon leakage. In engagement with the EU commission local producers highlighted downstream challenges

due to "zero embedded emissions when entering another production process" relating to aluminium and scrap metal-related products (Sandbag, 2023). The organisation argues that through the use of third-party producers, the transitionary and initial implementation of the EU CBAM would increase import costs while not sufficiently addressing carbon leakage up until all products are covered.

While government responses have been limited, the case of Belgium is indicative of rising industry stakeholder concerns. The most common concerns surrounding reporting periods lead to an increase in administrative costs for importers. Furthermore, as indicative of the Sandbag Climate Campaign, local stakeholders question whether CBAM as a carbon tax would be effective enough to address carbon leakage due to its limited scope.

CONCLUSION

The paper highlights various responses to the EU's implementation of CBAM as part of its efforts to limit carbon leakage and reduce GHG emissions. As carbon clubs have become more assertive in adopting carbon border mechanisms the Global South has been placed in a precarious contradiction on whether to engage multilaterally or respond with their carbon border mechanisms. The most notable trend in non-EU developed countries is to respond by drafting and accelerating their own CBAM initiatives and forming carbon clubs. In contrast, in the Global South there is a strong consensus on approaching WTO institutions to dispute the protectionist nature of the EU CBAM.

African states and BRICS members mainly oppose the implementation of CBAM, arguing that it limits trade competitiveness by establishing discriminatory trade practices. These practices are prefaced on the argument that CBAM does not coincide with current WTO trading rules and does not consider the special trade needs of developing countries. Similarly, BRICS states have outlined that through the development and implementation of the EU CBAM, EU and developed countries are dissolving trust in multilateral engagements. In short, the formation of carbon clubs does not acknowledge the historical responsibility of developed countries in decreasing and limiting carbon emissions but rather promotes "green protectionism".

The EU's implementation of CBAM has generated a range of responses. Broadly, African states and BRICS members are forming groupings and clubs as a way to provide a unified response to the CBAM. High-income countries have stressed the protectionist nature of the scheme whereas LDCs have outlined the challenges in addressing their developmental needs. While the EU's aim with the CBAM is to "level the playing field" between domestically produced goods and imports, there are apprehensions about its potential implications on trade, relationships, and market distortions. Ultimately, countries have engaged with the EU both bilaterally and multilaterally through the WTO.

In lieu of the transition period, which started on the 1 October 2023, it is key for developing countries to prepare for the increased rollout of CBAMs from industrialised countries. With country coalitions and carbon clubs at loggerheads, it is essential for developing countries and industry stakeholders to prepare for trade disruptions. The deadlocks at the WTO have led to uncertainty on how the impact of CBAM can be mitigated by industries. As other markets and countries prepare to implement their carbon border measures, countries within the Global South would need to prepare for trade disruptions, fragmentation of the multilateral systems, and increased decarbonisation efforts to ensure that carbon-intensive exports are not detrimentally impacted (Maimele, 2023b). Developing countries are not able to rely on multilateral institutions such as the WTO and would thus also need to further explore means of settling trade disputes collectively outside of these organisations. It seems highly unlikely that developing countries would be able to strengthen their collective responses to CBAM through the WTO and other multilateral institutions.

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