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Carbon Border Adjustment Mechanism (CBAM)

A new carbon-related regulation with geopolitical implications

Our presentation explores the European Union's Carbon Border Adjustment Mechanism (CBAM), a significant initiative designed to reduce carbon leakage and encourage sustainable trade. It imposes a carbon tax on imports of specific goods from non-EU countries that lack similar environmental regulations. We examine the varied impacts of CBAM on global economies, focusing on the distinct scenarios of China and Mozambique. China represents the perspective of developed nations with a robust economy, whereas Mozambique illustrates the challenges for developing countries with vulnerable economic structures. Through these case studies, we discuss climate justice and economic equity, offering insights into necessary policy adjustments and international cooperation to align CBAM with global climate goals effectively

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The European Green Deal: A Path to Climate Neutrality

Objective and Goals

- Launched in December 2019, it aims to make Europe the world's first climate-neutral continent by 2050, serving as a comprehensive economic growth strategy through transformative policies across various sectors

Strategy and Scope

- The European Commission emphasizes the need for increased global efforts to set ambitious targets and political commitments to significantly reduce worldwide emissions

Initiation and Global Impact

- Recognizes the risk of carbon leakage, where production may shift to countries with looser emissions standards due to the EU's stringent climate policies, potentially resulting in increased global emissions despite local reductions

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WHAT IS CBAM ?

December 2019

EU Commission Communication: Declaration of intent to introduce CBAM to counteract carbon leakage, especially targeting Emission Intensive Trade Exposed Industries (EITEs)

2020-2022

Policy Refinement and Expansion: Progressive refinement of CBAM details, including scope expansion to cover hydrogen and indirect emissions under specific conditions

April 18, 2023

Ratification by European Parliament: Formal approval of the CBAM, marking a critical step towards its full implementation

October 2023

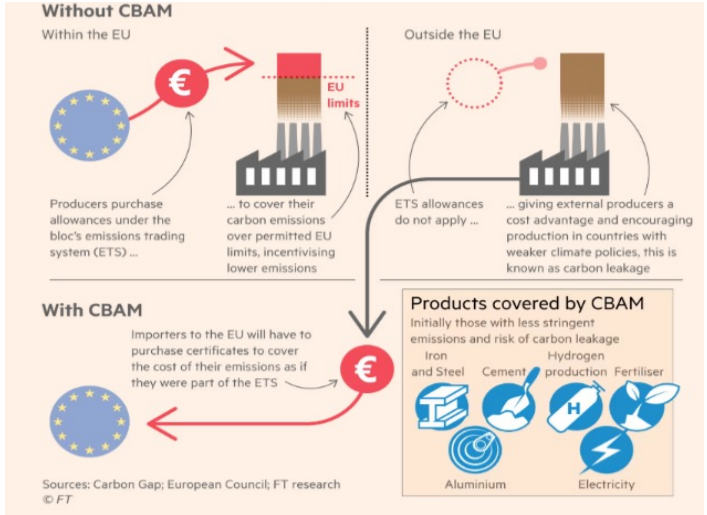
Start of Transitional Phase: Importers begin mandatory reporting of carbon emissions linked to the manufacturing of imported goods. This phase is crucial for gathering data and adjusting compliance systems

2026

Commencement of Border Taxation: Start of the active taxation phase where importers must purchase certificates reflecting the carbon emissions of their imports, fully integrating the CBAM with the EU ETS pricing mechanism

The Carbon Border Adjustment Mechanism (CBAM) was launched as a component of the broader "Fit for 55" initiative, which targets a 55% reduction in EU emissions by 2030 relative to 1990 levels

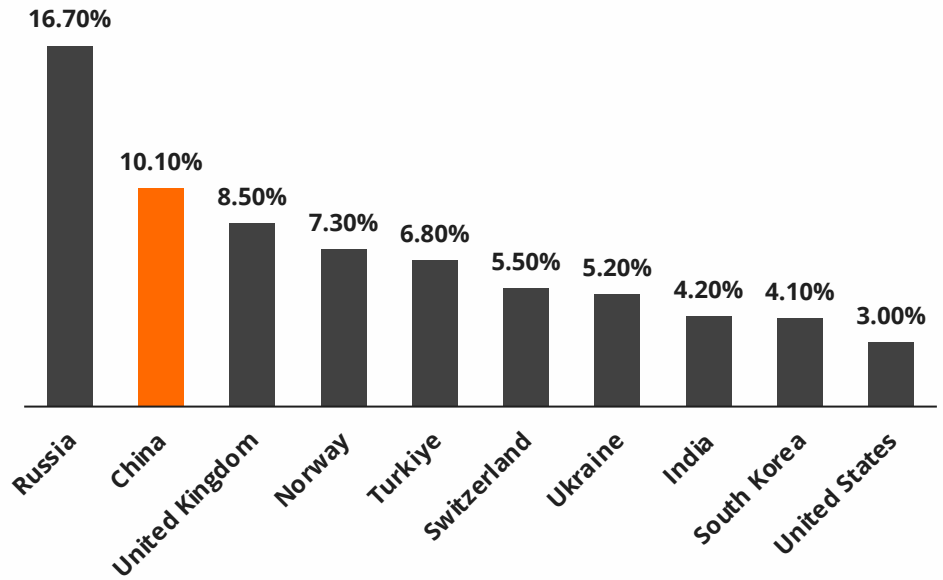
How the EU CBAM will work



CBAM IMPACT ON EXPORT

The introduction of the Carbon Border Adjustment Mechanism (CBAM) by the European Union represents a pivotal change in the landscape of international trade, particularly affecting countries that export carbon-intensive goods to the EU

CBAM Exports to the EU as a Share of Total Exports to the EU



Sources: Chris Kardish, Mattia Mäder, Mary Hellmich, and Maia Hall, "Which Countries Are Most Exposed to the EU's Proposed Carbon Tariffs?," resourcetrade.earth, Chatham House, August 20, 2021

Overland and Sabyrbekov (2022):

- Demonstrated that carbon-intensive economies like Ukraine, Iran, and Vietnam are significantly impacted by the EU's CBAM due to high carbon intensity and dependency on EU exports

Boston Consulting Group (2020):

- Found stark differences in carbon emissions between steel producers using traditional methods (e.g., China, Ukraine) and those using modern technologies (e.g., India, USA)

UNCTAD (2021):

- Predicted that CBAM could lead to a decrease in exports from developing countries to the EU, especially affecting regions like Africa, potentially decreasing its GDP by about 0.91%

IASS (2021):

- Highlighted that countries with limited data infrastructure face higher tax burdens under CBAM due to inaccurately high perceived emissions

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SECTION CAPS LOCK

Study case of a developed country : China

1. Chinese exports
2. Geopolitical concerns
3. Response and repercussions

Chinese exports to European Union : constant growth but fallback since CBAM announcements

1 CBAM Overview

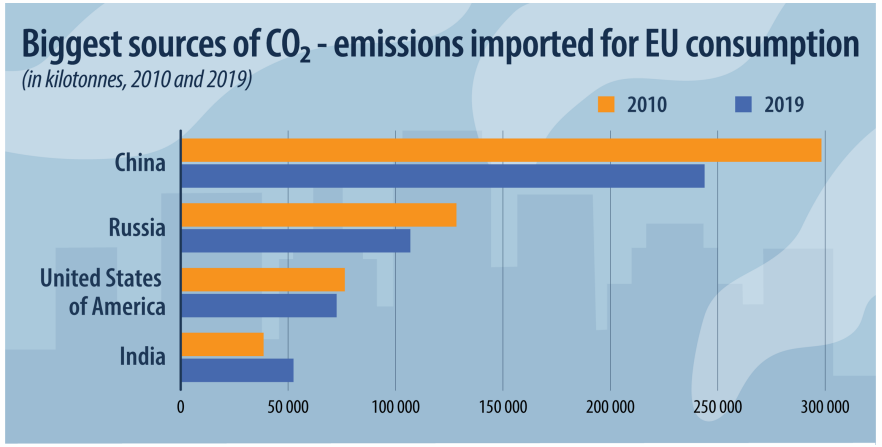
- China, as the **world's largest emitter and exporter of carbon-intensive goods** like steel, cement, and aluminum, is expected to be significantly affected

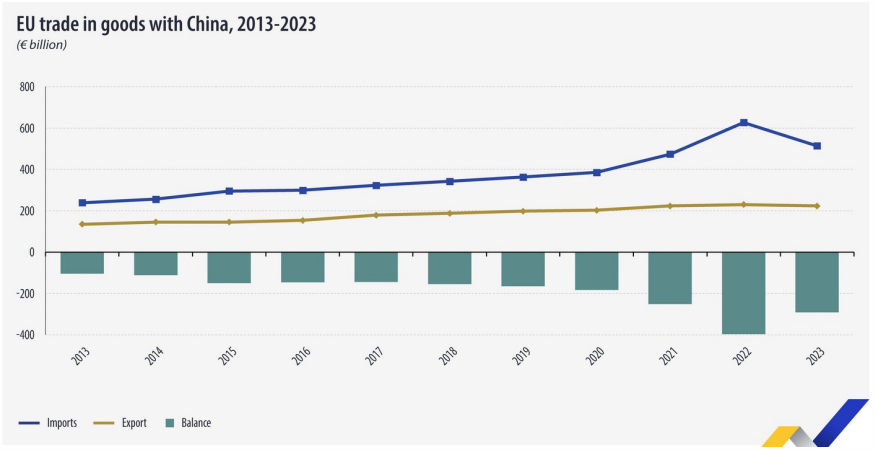
2 Economic consequences

- CBAM implementation likely to result in **decreased exports from China to the EU**
- Anticipated **higher tariffs** on Chinese steel and aluminum exports by 2026, affecting industries reliant on EU trade
- Estimated $20.5 billion worth of Chinese carbon-intensive goods subject to CBAM in 2022
- Real exchange rate decreased that could **favor non-CBAM exports**

3 Geopolitical complexities

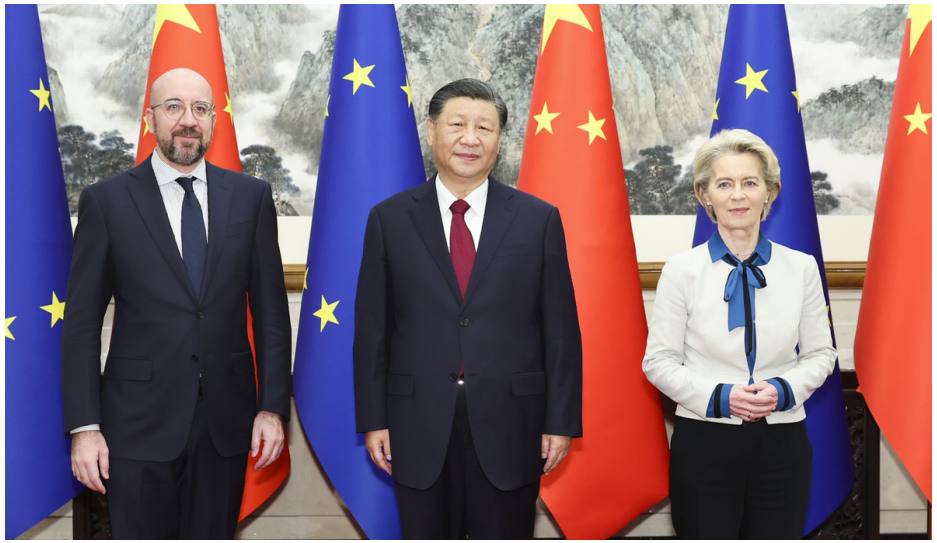
- CBAM poses serious geopolitical issues, potentially impacting global trade cooperation and climate action
- Retaliatory measures from China could further complicate trade relations and international efforts to tackle climate change





Sources: Eurostat

Chinese response : towards geopolitical tensions



China's criticism

- President Xi's reservations on CBAM, **urging against green trade barriers** during global climate summits
- Critics argue CBAM **goes against Paris agreements**, potentially hindering international climate cooperation

China's reaction

- China may respond with **countervailing tariffs, non-tariff barriers**, or strategic investments in clean technologies
- Trade tensions could escalate, leading to **protectionist policies** and disruptions in global economic recovery
- CBAM's effectiveness depends on China's response and collaboration among major economies.

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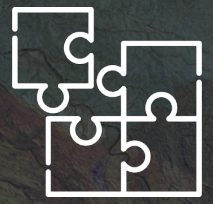
Mozambique’s Case Study

Mozambique’s Economy and Trade Relations At a Glance



Mozambique is highly exposed towards EU27 countries

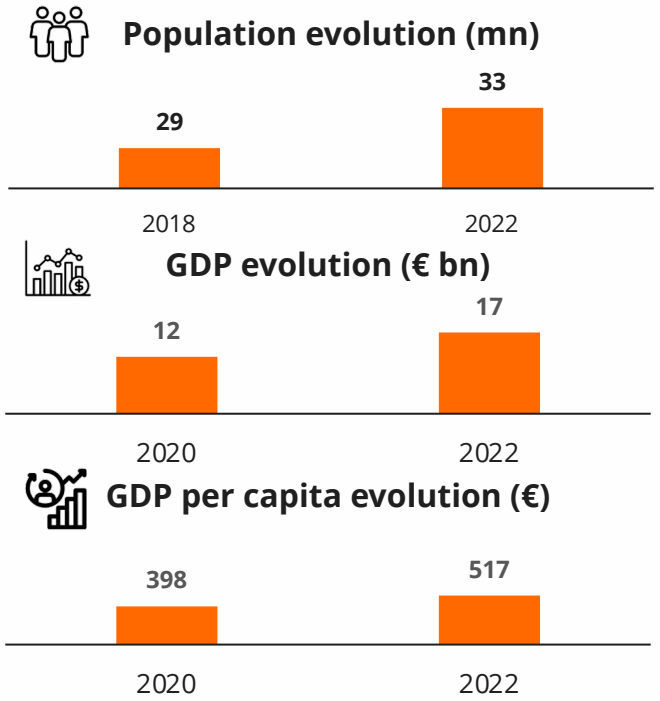
Fairness Concerns for Developing Countries

Mozambique's Economy and Trade Relations At a Glance

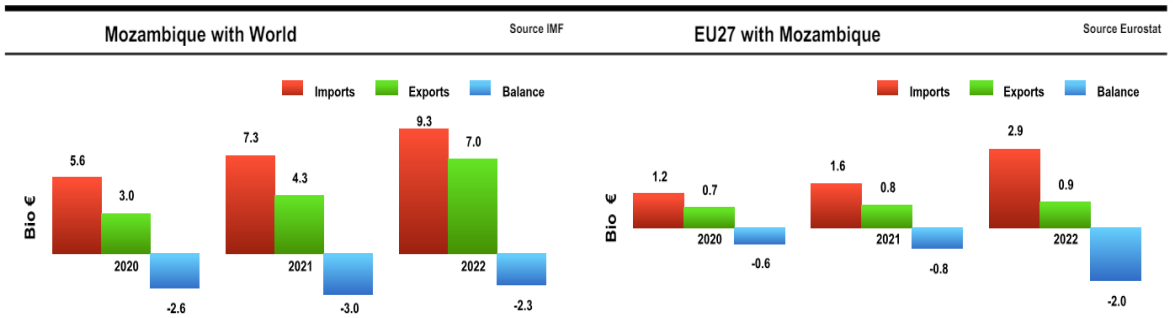
Mozambique, an African nation experiencing recent economic growth, faces a significant threat due to its reliance on the EU, particularly under the CBAM policy

1 Geographic positioning

2 Economic Overview



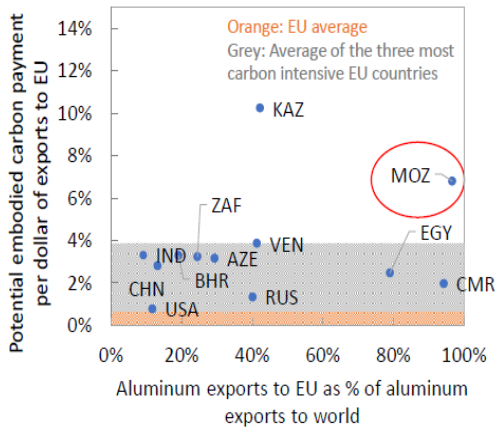
3 Mozambique Trade in Goods

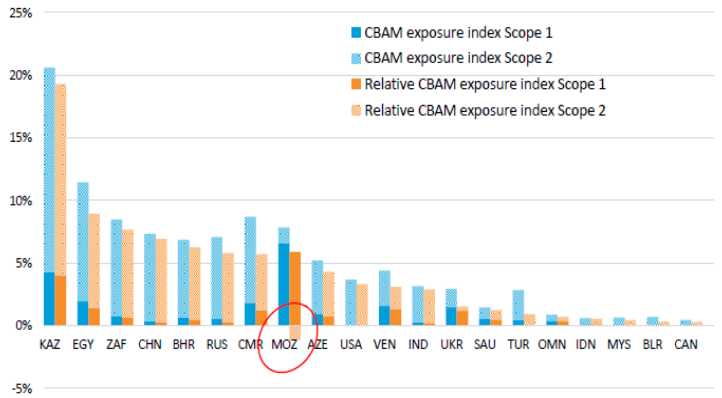


Sources: European Commission

Mozambique is highly exposed towards EU27 countries

CBAM's implementation is expected to profoundly affect Mozambique, particularly considering that in 2022, almost a fifth of its exports, primarily aluminum, were destined for the EU
The World Bank has devised the *CBAM Exposure Index* to help identify nations that could benefit from global aid in lowering the carbon footprint of their industrial goods





Model methodology

***CBAM exposure* index** $= X_{cs}^{EU} / X_{cs}^{World}$ * $100 per ton * EI_{cs}

***Relative CBAM exposure* index** = $X_{cs}^{EU} / X_{cs}^{World}$ * $100 per ton * $(EI_{cs} - EI_{EUs})$

where:
c = country, s = sector, X = exports, EI = emission intensity

Scope 1 Emissions encompass direct emissions from sources that a company uses during the production process.

Scope 2 Emissions include indirect emissions from energy generation used in the production process.

Mozambique's Aluminum Industry under CBAM Scrutiny

- Mozambique's aluminum industry faces considerable vulnerability primarily because of its high carbon emissions during primary aluminum production, especially when only Scope 1 Emissions are considered
- Approximately 74% of Mozambique's CBAM-affected exports are destined for the EU, constituting roughly 7% of the country's GDP
- Mozambique's primary export, aluminum, stands out as particularly vulnerable, with a carbon emissions intensity of 0.68 kg CO2eq/US$, significantly higher than the EU average of 0.07 kg CO2eq/US$

Sources: World Bank Exposure Index

CASE STUDY: MOZAMBIQUE

Fairness Concerns for Developing Countries

Change icons

Unequal Impact: Challenges for Developing Economies

Developing countries have smaller and less diversified trades: Developing countries, like those in Africa, heavily rely on carbon-intensive exports, leading to significant welfare losses under CBAM

Statistical and human capital constraints: Many developing nations lack the capacity to accurately calculate embedded emissions, prompting the EU to use defaults for emission intensity(1)

Financial Barriers for Least Developed Countries: LDCs(1) struggle to access capital for investing in carbon-friendly technologies, hindering their compliance with CBAM regulations

CBAM as a Threat to Development Rights in Developing Economies

Contradiction of EU Principles: CBAM's implementation highlights significant shortcomings, particularly its departure from the EU's principle of *"Do no harm"*

Climate Justice Concerns: Aligning CBAM with the principle of Common but Differentiated Responsibilities presents difficulties. Vulnerable countries, historically less responsible for global warming and less advantaged by industrialization, face undue burdens compared to EU states, contradicting broader climate justice goals

Economic Impact on Developing Economies: The mechanism could severely limit the trading capabilities of the LCDs(2); estimates suggest Africa alone could face annual losses up to $25 billion due to CBAM's effects(3)

Notes: (1) Calculated as the average intensity of the three worst-performing EU producers of those goods; (2) Least Developed Countries; (3) Estimates calculated by The African Climate Foundation

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CONCLUSION

The European Union's Carbon Border Adjustment Mechanism (CBAM) represents a significant evolution in the nexus of global trade and climate policy, signaling a transformative shift poised to reconfigure economic relations between the EU and its international trading partners. This report has explored the disparate effects of CBAM, with a particular focus on the asymmetrical impacts on China and Mozambique, which serve as case studies illustrating broader issues of climate justice and economic equity

1

Is CBAM's really going to have a green intent?

- **CBAM** has been proposed to reduce the carbon leakage phenomenon, but at the same time it threats developed countries development and could still favor cheap non-green materials

2

Asymmetries as seen in China and Mozambique case

- **China**: Equipped to adapt due to economic diversity and green technology investments
- **Mozambique**: More vulnerable due to economic limitations and reliance on specific exports

3

Possible measures to be implemented

- **Subsidized Technologies for LDCs:** Propose providing subsidized technologies to assist Least Developed Countries (LDCs) in transitioning to green energy solutions
- **Equitable Decarbonization Fund:** Establish a fund specifically aimed at offsetting adverse externalities associated with decarbonization efforts in LDCs
- **Support and Compliance:** Suggests gradual introduction and exemptions for vulnerable economies

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