

Weekly Summary

Economics of Climate Change

January 31, 2025

CBAM: Driving the Green Transition Within and Beyond the EU

CBAM should strengthen the EU's green transition while also promoting fair competition and global decarbonization. However, it will impact key trade partners, particularly those exporting high-carbon products, pushing them to adopt more sustainable practices.

With less than a year until the Carbon Border Adjustment Mechanism (CBAM) comes into effect, this overview examines its key components, implementation timeline, challenges, and the non-EU countries most impacted.

The Carbon Border Adjustment Mechanism (CBAM) is a carbon tariff embodied in EU imports of certain products, being part of the [Fit for 55](#)¹ European package, designed to assign a "fair price" to carbon in imported carbon-intensive products. Approved in 2023, the CBAM complements the EU Emissions Trading System (EU-ETS²) by leveling the playing field between domestic producers, who face strict climate regulations, and foreign competitors from regions with less stringent climate policies.

The CBAM has a dual objective: to reduce the risk of "carbon leakage" and to encourage CO2 emission reductions outside the EU. The CBAM aims to mitigate the risk of carbon leakage and protect European industries from unfair competition that may arise from companies in non-EU countries with less stringent climate policies. Additionally, it seeks to contribute to CO2 emission reductions beyond the EU and support global decarbonization. By imposing a cost on imports based on their carbon footprint, it incentivizes producers outside the EU to adopt more sustainable practices.

The CBAM was approved in 2023 but will not have a significant impact until 2026. It is currently in its transitional period (October 1, 2023 – December 31, 2025). During this phase, importers of goods covered by CBAM must report the embedded emissions of their imports on a quarterly basis. However, they are not required to make any financial payments or adjustments at this stage. Starting in 2026, importers will be required to declare, by May 31 of each year, the quantity of goods subject to CBAM that were imported during the previous year. Additionally, they must purchase and surrender a corresponding number of CBAM certificates to account for the embedded emissions of their imported goods. Companies that fail to reduce or offset these emissions will face additional costs and may see their competitiveness in the European market diminished. **The implementation of CBAM will be gradual from 2026, reaching full effect only by 2034. In parallel, the progressive phase-out of free allowances allocated under the EU-ETS framework will take place.**

The CBAM Transitional Registry, a key tool to implement the mechanism. The CBAM Transitional Registry is an electronic registry designed to support importers in fulfilling their reporting obligations during the transitional

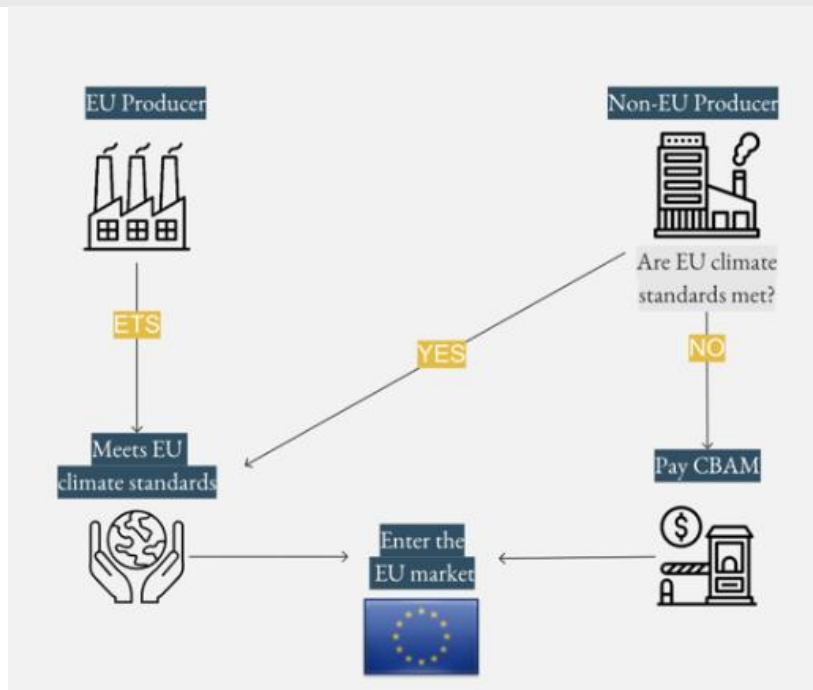
1: Fit for 55 is a set of proposals aimed at revising and updating EU legislation and launching new initiatives to ensure EU policies align with climate goals set by the European Council and Parliament. "Fit for 55" refers to the goal of reducing greenhouse gas emissions by at least 55% by 2030.

2: The EU Emissions Trading System, the main tool for reducing greenhouse gas emissions in Europe, based on the "polluter pays" principle. Industries under this system must procure an emission permit for each ton of CO2 they emit, providing a financial incentive for decarbonization. Permits are bought through auctions, with prices determined by supply and demand, although some permits have been freely allocated, especially in sectors at risk of production relocation to regions with weaker environmental laws.

phase of CBAM (October 1, 2023 – December 31, 2025). It simplifies the reporting process for embedded emissions by enabling importers to create, edit, and submit quarterly carbon emissions reports. The registry includes a user manual and pre-defined templates to streamline submissions, as well as a validation system to ensure data accuracy before final submission. From 2026, the CBAM Transitional Registry will become the permanent registry, also managing the CO₂-based tax on imports. To assist non-EU operators in complying with the mechanism, the EU provides a [guidance document](#), webinars, and tailored technical support.

CBAM applies to both raw materials and the products manufactured from them. CBAM initially applies to imports from carbon-intensive sectors with a high risk of carbon leakage, including cement, iron and steel, aluminium, fertilizers, electricity and hydrogen. This scope covers both raw materials and manufactured goods, such as automotive parts and pipes made from steel or aluminium (**Figure 1**). **By 2030, the EU plans to assess and potentially expand CBAM’s coverage** to include more than half of the emissions from the EU-ETS sectors by 2034.

Figure 1. **CARBON BORDER ADJUSTMENT MECHANISM**



Source: BBVA Research from Grupo Apala LLC.

The European Commission has just announced a forthcoming review of the CBAM. To enhance the effectiveness of the mechanism, the European Commission has just announced in a communication to the European Parliament on the [Competitiveness Compass for the EU](#) that it will conduct a review to assess the possible expansion of the CBAM’s scope to additional sectors and downstream products, as well as potential measures to address the impacts on exports of relevant goods. This will strengthen the objective of preventing “carbon leakage” and ensure a greater impact in terms of promoting global carbon pricing and, consequently, fostering a level playing field at the international level.

While CBAM promotes sustainability, it presents significant challenges for businesses. i) **The increase of operation costs.** Companies relying on carbon-intensive products may face higher costs due to emission adjustments, which could, in turn, affect the prices of other products or increase prices for end consumers. ii) **Dependence on sustainable suppliers.** European companies will need to carefully evaluate their suppliers and potentially switch to those that meet CBAM standard, which may limit their options and increase complexity. iii) **Technological Adaptation.** Significant investments in technology will be required to meet the new standards and reporting requirements.

In this way, the Commission is also working on simplifying CBAM, at least for smaller market players. The EU is committed to support developing countries and LDCs in adapting to CBAM, greening its industries, and transitioning to renewable energy. As part of this commitment, the EU Commission will conduct a study by the end of CBAM's transitional period in 2025 to assess its impact on developing countries, particularly LDCs. Through different initiatives, such as [Energy Community](#) or the [Global Europe: Neighbourhood, Development and International Cooperation Instrument - European Commission](#) the EU ensures that CBAM implementation aligns with broader sustainability goals.

The implementation of CBAM will impact EU's trade partners, particularly those exporting goods with a high carbon footprint. A risk ranking based on OECD's data of carbon intensity (vulnerability) and weight of exports to the EU27³ (exposure) identifies Ukraine and Russia as the two countries most exposed to CBAM in the period 2018-20. Both are among the EU's key suppliers of CBAM-affected products, particularly basic metals (iron and steel) and chemical products such as fertilizers (see **Table 1 and Box 1**).

Türkiye and China are among the top ten most exposed countries to CBAM. Türkiye, which ranks seventh, does not export particularly CO₂-intensive products⁴ to the EU but the share of CBAM-affected products in its total exports is higher than in other countries, making it more exposed to the mechanism. Meanwhile, **China**, eighth country in the ranking, exports CO₂-intensive chemical products to the EU. Regarding **Latin American countries**, there does not appear to be significant exposure to CBAM.

3: This indicator represents the weight of exports from the four exposed sectors (electricity, chemicals and chemical products, basic metals, and other non-metallic mineral products) relative to the country's total exports.

4: Considering the sectors analyzed in this study, Türkiye does not present a higher CO₂ emission intensity in its exports compared to other countries included in the ranking. However, Türkiye has a [significant bilateral trade](#) network with the EU, with motor vehicles, machinery, and electrical equipment leading the way, as well as cement and steel, all of them CO₂-intensive products.

Table 1. **RISK RANKING FOR THE CBAM. TOP TEN AND KEY MARKETS FOR BBVA**

RANKING POSITION 2020	COUNTRY	AVERAGE GLOBAL RANKING POSITION*		
		2018	2019	2020
1	UKRAINE	10 (1)	8.5 (1)	10 (1)
2	RUSSIA	10.5 (2)	11.5 (2)	11 (2)
3	KAZAKHSTAN	11.5 (3)	13 (3)	12.5 (3)
4	INDIA	14 (4)	15.5 (4)	13.5 (4)
5	SOUTH AFRICA	15.5 (5)	15 (5)	15 (5)
6	BELARUS	16.5 (6)	16.5 (6)	16.5 (6)
7	TURKEY	17 (8)	17.5 (8)	16.5 (7)
8	CHINA	16.5 (7)	17 (7)	18 (8)
9	MOROCCO	17.5 (9)	16.5 (9)	18 (9)
10	EGYPT	18.5 (10)	18 (10)	18.5 (10)
28	ARGENTINA	23 (24)	25 (24)	24 (28)
30	COLOMBIA	23 (25)	27.5 (25)	24 (30)
32	USA	25.5 (34)	24 (34)	24.5 (32)
38	MEXICO	29.5 (39)	28 (39)	29 (38)
41	PERU	28.5 (38)	28 (38)	29.5 (41)

* The first digit represents the average between the CO2 intensity embedded in European exports, and exports subject to CBAM (as a percentage of total exports), while the number in parenthesis indicates the country's position in the ranking (among the top 44 most affected countries), being one the most affected and 44 the less.

Source: BBVA Research from from OECD data.

In conclusion, the CBAM aims to prevent carbon leakage by ensuring that imported goods reflect their true carbon cost, aligning with the EU's climate goals. It levels the playing field between EU industries and foreign competitors, incentivizing global decarbonization by encouraging cleaner production methods. While it strengthens the EU's green transition, it will also impact key trade partners, particularly those exporting high-carbon products or high exposure to risk., such as Ukraine, Russia, Türkiye, and China, pushing them to adopt more sustainable practices.

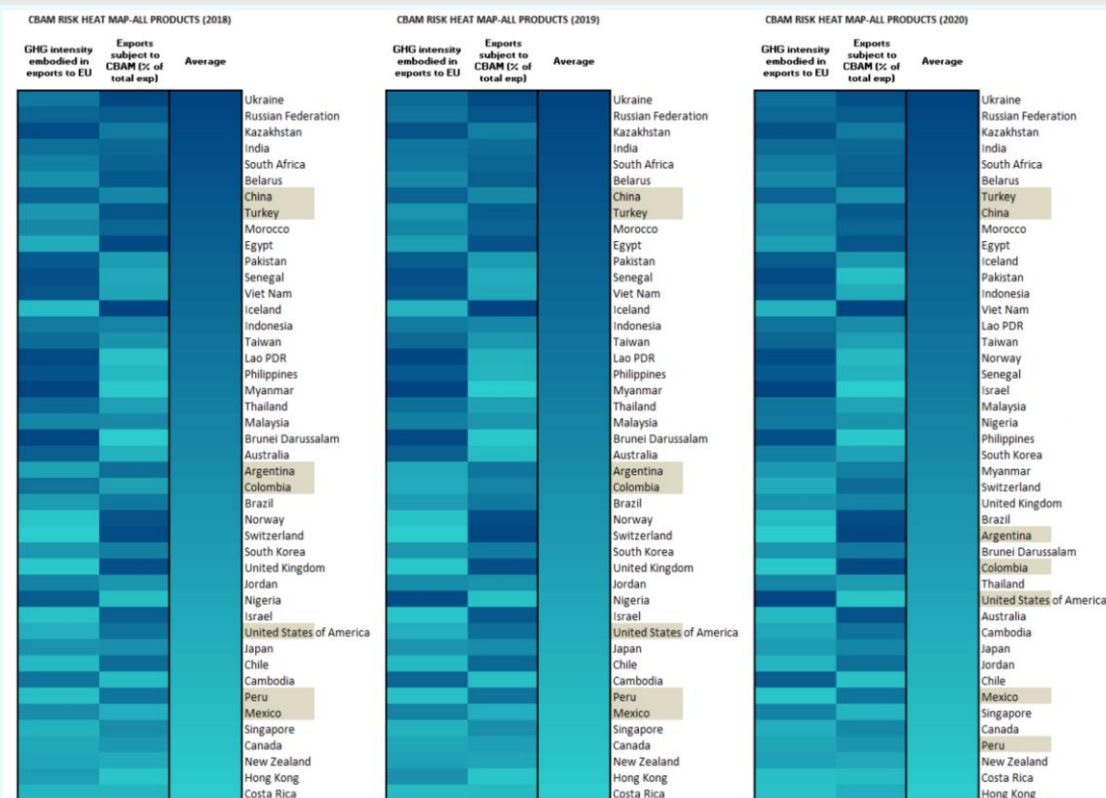
Box 1. Risk Ranking of Exporting Countries to the EU Affected by CBAM

A ranking of the main exporting countries to the EU has been carried out, ordered by their level of exposure to CBAM from highest to lowest. The ranking has been based on the average of **two factors** measured for each country:

- Embodied CO2 emissions in products exported to the EU.** This determines the number of CBAM certificates that must be purchased per monetary unit of exports.
- Exposure to risk.** It considers the share of CBAM-affected product exports to the EU27 relative to the country's total exports.

The lower the average of the ranking of these two factors, the higher the country's risk from CBAM. A darker tone in the heat map of **Table 2** indicates a lower value and, consequently, greater exposure. It is worth noting that **the ranking of countries remained largely unchanged in 2018-2020.**

Table B1.1 **RISK RANKING OF THE EU TRADE PARTNERS AFFECTED BY CBAM. 2018-2020**



Source: BBVA Research from OECD.

Highlights of the Week

- **Global | Energy and AI: the power couple that could usher in a net-zero world. World Economic Forum** . Across industries, the call for energy systems that provide maximum power, minimal emissions, and energy security is growing louder. And central to unlocking this potential is artificial intelligence (AI), which offers unprecedented opportunities to revolutionize production, management and consumption of energy.
- **China | How China became the world's leading market for energy storage. Carbon Brief**. China's energy storage sector is rapidly expanding. As a solution to balancing the country's growing energy needs and mass renewable energy production, the industry has attracted investments worth hundreds of billions of yuan.
- **U.S. | Donald Trump wiped out dozens of Joe Biden's climate initiatives in first-week blitz. Financial Times**. US President Donald Trump eliminated more than 70 climate and green energy initiatives in his first week of office, launching a sweeping and aggressive move to dismantle Joe Biden's climate and industrial legacy.
- **Türkiye | Türkiye surpasses 2025 solar target as capacity doubles in 2.5 years | Ember**. Türkiye has doubled its solar capacity in just 2.5 years, surpassing its current target more than a year ahead of schedule. The progress underlines the opportunity for an upgraded target in its upcoming Nationally Determined Contribution.

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ENQUIRIES TO:

BBVA Research: Azul Street, 4. La Vela Building – 4th and 5th floor. 28050 Madrid (Spain).
Tel. +34 91 374 60 00 y +34 91 537 70 00 / Fax (+34) 91 374 25
www.bbvaresearch.com