

Unpacking the EU's Green Policies:

## The EU's Carbon Border Adjustment Mechanism (CBAM) and its Broader Context

*Technical brief prepared by Mr. Aaron Cosbey (Small World Sustainability Consulting) for ITC's webinar on 'Demystifying EU's Carbon Policies and Impact on Trade' held on 19 May 2022.*

The European Union (EU) has committed to a suite of policies and regulations that will see its greenhouse gas (GHG) emissions drop by 55% from 1990 levels by 2030. By international standards, this commitment is a frontrunner in climate ambition.

### What is the CBAM?

The European Commission in July 2021 published [its proposal](#) for a Carbon Border Mechanism (CBAM). Part of the [EU Green Deal](#), and specifically its [Fit for 55](#) climate policy package, the CBAM is designed to enable the EU to impose a high carbon price on its energy-intensive trade-exposed industries like steel, aluminum, fertilizers and cement, via its emissions trading system (ETS). The EU ETS requires GHG-emitting industries to buy allowances for every tonne of carbon produced. The CBAM requires importers to purchase emissions allowances for imported goods as if those goods had been produced domestically and subjected to the EU ETS. The stated objective is to prevent high domestic carbon prices from simply shifting emissions to other countries as EU producers compete with foreign producers that are not subject to a carbon price – a process known as *carbon leakage*.

### What is the status of the CBAM legislation?

The CBAM has not yet been passed into law. Before that happens, there will need to be agreement on its details by three EU governing bodies: the European Commission, the Parliament, and the Council.

The Commission launched the process in June 2021 with its proposal ([see full text here](#)). There will now be a process wherein the Council and the Parliament will negotiate to produce final legislation. This negotiation is supposed to be completed in time for the CBAM to come into effect by 1 January 2023, but it seems likely to be delayed.

The Commission proposal would see a three-year period during which data is required but no charges imposed, with charges starting in 2026.

Since the Commission proposal is the best indication available at this point of how the CBAM will look, this briefing note

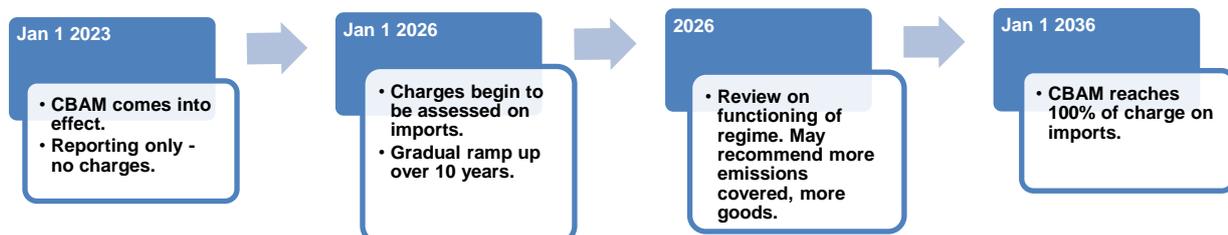


*Credits: E2 Law Blog*

uses it as a starting point, but with the caveat that some parts of it may change in the process of negotiation to final law. Where those changes are likely, it is noted below.

### How would CBAM work in practice?

**Coverage:** Four types of goods are covered, namely - iron & steel, aluminum, cement, and nitrate fertilizers. Electricity is also covered. The coverage in goods is very high on the value chain, with only basic materials and semi-processed goods included.



**Importers' responsibilities:** Importers would need to declare the embedded GHG emissions in all imported goods and electricity and surrender the appropriate number of CBAM certificates on an annual basis. Those certificates could be bought at any time at the current value of the EU allowances – the units of payment of its ETS (currently trading at just over €90/tonne of CO<sub>2</sub>).

**Producers' responsibilities:** In practice, importers will not be the ones calculating and verifying the emissions intensity of goods – that job will fall to non-EU producers, who will be asked for that data by importers. Exporters should register basic information about their facilities in an EU central database, to be accessed by prospective importers.

**Calculating Carbon Content:** Carbon content would have to be third-party verified according to a standard yet to be developed by the EU – a process for which the exporter would normally pay. In the Commission proposal, only direct emissions (scope 1 – process emissions and those under the direct control of the producer) would be covered, as well as emissions embedded in certain input goods (yet to be defined which goods, but likely to be those that are also covered under the CBAM). Future revisions of the CBAM will likely also cover indirect emissions from purchased electricity, as well as more classes of goods.

If actual data on emissions is not furnished, the importer would have to reference the first default: EU-supplied sectoral averages of emissions intensity in major trading partners. If the EU has not compiled such figures for a particular sector and country, a punitive second default

GHG intensity is applied: the average of the 10% worst EU performers in that sector.

The CBAM charge would be adjusted down by the value of the free allowances given out to the corresponding sectors under the EU ETS. Those allowances are currently quite high, meaning the CBAM charges would be quite low. But they are due to drop by 10% a year starting in 2026, being fully phased out by 2035. The CBAM charges would also be adjusted down to account for any carbon price the foreign producer might have already paid.

## What are the potential trade impacts?

CBAM's impacts for a given sector in a given country will depend on several variables, including:

- The value of goods exported to the EU, and the significance of that value to the economy

- The GHG intensity of production for those goods
- Any carbon price paid in the country of export

**In terms of value of goods exported to the EU:** Table 1 shows the top 30 exporters to the EU in the covered goods, ranked by share of GDP. Undiversified economies with major exports in covered goods such as Mozambique (aluminum) rank high on the list, though countries such as Russia, China, and Turkey rank highest in terms of total value of traded goods covered. The significantly affected countries are predominantly EU neighbors: Mediterranean and Eastern European trading partners (indicated in Table 1 by green shading).

It is important to note that the numbers demonstrated in Table 1 are not projections of export losses, but rather are the value of total exports in the covered goods. While those totals give some indication of vulnerability, the actual losses to be expected would be some fraction of those totals.

**Table 1: Top exporting countries to the EU in CBAM-covered sectors (by share of GDP)**

		Exports covered (EUR) (2020)	% OF GDP
1	Mozambique	854,373,252	5.34%
2	Macedonia, Former Yugoslav Rep.	368,216,573	2.63%
3	Bosnia and Herzegovina	501,099,458	2.22%
4	Serbia	1,160,358,686	1.92%
5	Montenegro	87,520,302	1.61%
6	Ukraine	2,593,576,518	1.46%
7	Belarus	756,209,769	1.10%
8	Bahrain*	451,387,497	1.03%
9	Moldova, Republic of	120,372,612	0.89%
10	Jordan	419,995,089	0.84%
11	Trinidad and Tobago	155,746,277	0.63%
12	Albania	104,407,748	0.62%
13	Turkey	4,401,587,714	0.54%
14	Russian Federation	6,987,476,015	0.41%
15	Morocco	483,765,263	0.38%
16	Tunisia	165,424,315	0.37%
17	Armenia	51,911,967	0.36%
18	Zimbabwe	54,529,406	0.29%
19	Tajikistan	24,134,866	0.26%
20	Georgia	41,494,603	0.23%
21	Egypt	934,746,239	0.23%
22	United Arab Emirates*	881,597,112	0.18%
23	Algeria	297,985,632	0.18%
24	South Africa	574,541,941	0.17%
25	Cameroon	73,023,311	0.16%
26	United Kingdom	4,396,401,718	0.14%
27	Vietnam	421,883,118	0.14%
28	Korea, Republic of	2,388,705,942	0.13%
29	Kazakhstan	165,300,180	0.09%
30	Kosovo	7,239,170	0.08%

**Source:** Export figures from EU ProdCom database; GDP data: World Bank World Development Indicators database. \*Based on 2019 GDP.

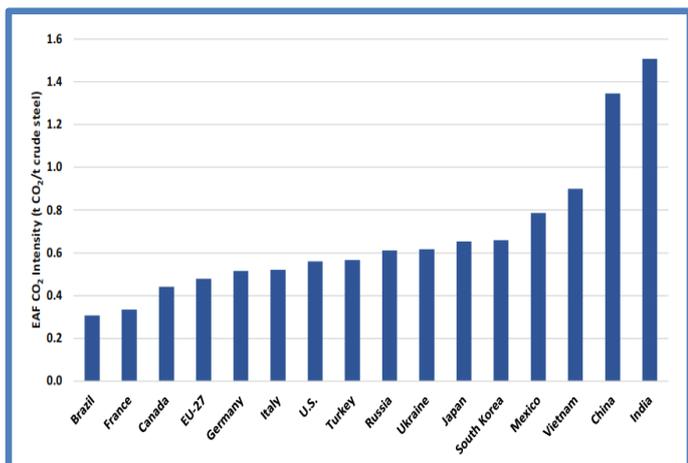


Credits: European Economic and Social Committee

**In terms of GHG intensity of production:** The higher the GHG intensity of production, the higher the CBAM charges. Low GHG intensity is rewarded not only with low charges, but also potentially—if it is lower than the GHG intensity of EU producers—with increased competitiveness vs EU producers in the EU market. While EU producers tend to be relatively clean, some other producers are cleaner. As an illustration, Figure 1 shows country average emissions intensity for steel produced in electric arc furnaces in major steel producing countries.

A few estimates have been made of the sorts of impacts to be expected from CBAM. A 2021 UNCTAD analysis, carried out before the European Commission proposal was tabled, modelled the expected reductions in developing country exports to the EU at an average of 2.4% across the covered sectors, assuming a carbon price of €88/tonne.<sup>1</sup> Developed country exports were not as strongly impacted because of their assumed lower emissions intensity.

**Figure 1: EAF emissions intensity in major steel producing countries**



**Source:** Hasanbeigi, A. 2022. *Steel Climate Impact - An International Benchmarking of Energy and CO<sub>2</sub> Intensities*. Global Efficiency Intelligence. Florida, United States. <https://www.globalefficiencyintel.com>

A more recent analysis found GDP impacts on specific countries to be almost insignificant, with only Russia and Ukraine seeing impacts of as much as 0.25%.<sup>2</sup> For several reasons these figures should be considered upper bound estimates, and probably need to be discounted.

As a general proposition, the impacts of the CBAM on foreign exporters is expected to be limited, in part due to the CBAM's limited sectoral coverage and in part due to

the slow timeline for actual implementation. There are significant exceptions to that general truth, however, including countries like Mozambique, which relies heavily on exports of aluminum to the EU, and Russia, which is the EU's top source of imports in three of the four covered sectors.

### Does that mean CBAM can be ignored?

Despite the fact that estimates of actual impact are generally low, there are a few reasons that countries and exporters should be paying attention to the CBAM file:

- Average figures do not tell the whole story. Specific producers in specific countries will be disproportionately impacted by the regime.
- It is widely expected that the coverage of the CBAM will be broadened. The CBAM Rapporteur of the European Parliament's Committee on the Environment, Public Health and Food Safety (ENVI Committee) has proposed extending coverage to include basic chemicals, plastics, and hydrogen. To give a sense of scale, that proposal would increase the total value of covered Chinese exports by roughly 500%. Even if these sectors are not included in the initial iteration of the CBAM, they are likely to be included eventually, perhaps as a result of a proposed review of the regime in 2026.
- The EU is probably not the only jurisdiction that will bring into force such a regime, and the total impact would be the sum of all schemes. Canada has just wrapped up [government consultations](#) on what a CBAM might look like in that country. The UK [has said](#) on and off that it will match whatever scheme the EU puts in place. The US has also repeatedly stated that [it wants a border carbon adjustment regime](#), though it is not clear what it might look like, given that the US has no carbon price for which to adjust. Ultimately, any country that take serious action on climate change will consider resorting to some sort of mechanism to protect its emissions-intensive trade-exposed sectors from the risk of leakage and competitiveness impacts.

### CBAM in the Broader Context

It is important to put the CBAM into context as an example of a trend toward the consideration of embedded carbon in traded goods. That trend manifests in government policy in initiatives such as:

<sup>1</sup> United Nations Conference on Trade and Development. (2021). *A European Union carbon border adjustment mechanism: Implications for developing countries*. UNCTAD.

<sup>2</sup> He, X., Zhai, F., and Ma, J. 2022. *The Global Impact of a Carbon Border Adjustment Mechanism: A Quantitative Assessment*. Task Force on Climate, Development and the IMF. March, 2022.

- CBAM, or Border Carbon Adjustments (BCA), possibly enacted in various jurisdictions (in process in the EU, considered in Canada, the US and UK)
- [Clean fuel standards](#), which enforce a maximum carbon content of imported petroleum-based fuels (in force sub-nationally in the US and Canada; [in process nationally in Canada](#))
- Anti-deforestation law that limits imports of products that are linked to deforestation, based on their implied GHG emissions ([in process in the EU](#); [being considered in the US](#))
- GHG performance standards for basic materials such as steel and aluminum, that enforce a maximum carbon content of imported products (possible result of the EU-US [“Global Steel and Aluminum Arrangement”](#); and [proposed by Germany](#) as part of a G7 “Climate Club”)

It also manifests in private sector transactions, such as:

- Buyers setting standards or locking in contracts to decarbonize their supply chains. Recent contracts or commitments of this sort have been announced by [Tesla](#), [Apple](#), [Nestle](#), and others. Just under 700 of the largest 2,000 publicly traded companies worldwide have [made net-zero emissions or carbon neutrality commitments](#).
- Private sector initiatives ongoing to define standards of accounting for carbon in goods that aims to respond to future demand, including [Responsible Steel](#), [LeadIT](#) (public and private), and the [Industrial Deep Decarbonization Initiative](#) (public and private).
- Buyers’ coalitions pledging to procure only low-carbon products, such as the [First Movers Coalition](#) and the [SteelZero Initiative](#).

- Efforts by companies such as Maersk to [offer carbon-neutral B2B services](#).

At this point, these sorts of standards and commitments only affect a small portion of global trade. But they likely represent the thin edge of a larger reality: that in a world where climate change is taken seriously, the carbon content of traded goods will be a significant factor in demand and price.

For GHG-intensive exporters, that means it makes sense to explore the viability for tracking and reducing GHG emissions. Governments that host such producers should be thinking about ways to boost the capacity of producers to do so, helping them to succeed in the greener global markets of the future.



*Credits: European University Institute*