

## Getting the Prices Right: Economy-wide Policies to Promote Structural Change: European Union

### Case Study 7. European Union: Carbon Border Adjustment Mechanism

Contributors: Alexandru Cosmin Buteică and Eliza Barnea

#### Context

A border carbon adjustment mechanism (BCA) is a policy instrument whereby a government imposes a carbon price on certain carbon-intensive goods that are imported from other jurisdictions at the border. The main objective is to adjust the carbon price levied on those imported goods with the carbon price charged on domestically produced goods, for example through a carbon tax or an ETS covering domestic industry. In this sense, a BCA is an extension of a direct carbon pricing instrument like a carbon tax or an ETS to goods imported from other jurisdictions to provide a level playing field and prevent carbon leakage.

With the introduction of the European Green Deal and the adoption of a 2050 net-zero target, the EU has increased its efforts to level the playing field of climate ambition around the world and minimize the risk of carbon leakage. One element of the EU strategy is the Carbon Border Adjustment Mechanism (CBAM), which was adopted in April 2023, with implementation starting in a staged approach from October 1, 2023.

#### Policy

In its initial phase, the CBAM will set a price on carbon-intensive goods imported by the EU in five sectors: cement, iron and steel, aluminum, fertilizers, electricity, and hydrogen. The mechanism will function as a carbon price levied on imports to the EU that have industrial emissions, with obligations for importers to submit CBAM certificates priced in line with EU ETS allowances from 2026.

The CBAM includes provision for imports to the EU to be granted reduced charges if they have already paid a direct carbon price in their country of origin. For countries that export to the EU, this creates an incentive to introduce a carbon price to capture the revenues domestically. This argument is stronger for countries that have close trade ties with Europe. For instance, Türkiye's Medium Term Programme (2023–25) explicitly connects its plans for introducing a national ETS in Türkiye to the EU CBAM.

The adopted regulation envisages that CBAM should only cover direct emissions produced during the manufacturing process of the included goods. To maintain administrative simplicity, indirect emissions, such as those resulting from electricity

consumption for manufacturing, heating, or cooling, will not form the basis of the CBAM charge. The CBAM could be expanded in the future to incorporate indirect emissions from purchased energy and the Commission has the option to establish calculation methods and system boundaries for embedded emissions at a later point through delegated acts (European Parliamentary Research Service 2023).

The phase-in of the CBAM will be accompanied by the gradual reduction of free allocations under the EU ETS between 2026 and 2034. In 2034, sectors covered by the CBAM will stop receiving free allocations. This phased implementation will allow producers, importers, and traders in EU member states to adjust to the new regulation.

## Results and Impacts

The policy has yet to enter into force. In December 2022, the Council and the European Parliament reached a political agreement on the implementation of the mechanism and in April 2023 the Council of the EU adopted the regulation, which is set to enter a transitional phase on October 1, 2023.

The CBAM proposal is likely to affect EU industry in various ways. EU manufacturers of the five product categories could see increased output and FDI inflows as third-country imports become less competitive under CBAM, while phasing out free allowances under the EU ETS may decrease exports. EU downstream producers using these categories as inputs in their supply chains may face higher costs and reduced competitiveness, possibly prompting them to seek less carbon-intensive suppliers to avoid financial adjustments. Nevertheless, the European Parliament expects the CBAM to incentivize third-party producers to implement more efficient processes, while the phaseout of free allocations is expected to increase the ambition of EU producers to decarbonize. The European Parliamentary Research Service estimated in 2023 that the CBAM would reduce carbon leakage by 29 percent by 2030, with limited negative impact on GDP.

LMICs with manufacturing sector exports to the EU would most likely be affected by rising import costs and increasing prices on intermediate inputs. This could lead to a decline in output and employment, which is expected to be very small at the macro-economic level but could be significant for the most exposed and carbon-intensive sectors (such as steel or chemistry) and in the locations in which these industries are concentrated. While the CBAM would have an important role in countering carbon leakage and fostering competitiveness, academic research shows that the impact on global emissions will be limited (Fischer and Fox 2012).