

How to design a watertight CBAM to protect the European steel industry from carbon leakage

The Carbon Border Adjustment Mechanism (CBAM) is a tool that puts a price on certain carbon intensive goods entering the EU in order to encourage climate-friendly industrial production.

But here's the problem: the CBAM, as it stands, is full of loopholes. If not fixed, it would undermine decarbonisation investments, accelerate deindustrialisation, favour production in third countries, and fail to cut global emissions.

Fair play for a fair transition

European steel producers are facing increasing carbon costs under the EU Emissions Trading System (ETS), while competitors in third countries have been exempted from any carbon costs.

The EU steel industry is leading the transition to green production, but cheap imports risk undermining that effort.

The CBAM can be a game-changer, but only if it's designed right.

Right now, loopholes allow foreign producers to sidestep carbon costs, shifting emissions elsewhere instead of reducing them. Without fixing these flaws, the CBAM would fail to protect EU industry and could even accelerate deindustrialisation.

CBAM Toolbox: fixing the loopholes to prevent carbon leakage

The CBAM was designed to ensure fair competition and reduce global emissions, but loopholes threaten to undermine its effectiveness. Here's how we can fix it:

- **EXPORTS' LEAKAGE:** Keep free allocation for exports to avoid carbon leakage in global markets.
- **RESOURCE SHUFFLING:** Use only default values based on the most carbon intensive route for a transitional period (e.g. until 2030).
- **DOWNSTREAM SECTORS:** Extend the CBAM to steel-intensive downstream goods with a simplified emissions calculation system for complex products.
- **DEFAULT VALUES:** Fix default values of stainless steel with the most representative steel grade.
- **INDIRECT EMISSIONS:** Maintain indirect cost compensation for steelmaking and include indirect emissions of ferro-alloys in the CBAM.
- **MELTED AND POURED:** The origin of CBAM goods must be set where the steel was melted and poured.
- **INWARD PROCESSING PROCEDURE:** Delete the inward processing procedure to avoid a major environmental loophole.
- **CBAM BENCHMARKS:** Free allocation benchmarks for long products and stainless steel need to reflect the most climate-friendly practices.

Without free allocation for exports, more carbon leakage in global markets

The EU steel industry exports over €25 billion worth of steel per year and around €40 billion of downstream steel goods—but without CBAM fixes, these exports are at risk. The lack of a solution to preserve exports is a major loophole that has a negative impact not only on competitiveness but also on climate because EU exports will be displaced by more carbon intensive products.



• Outside the EU, where steel has no additional carbon cost, European steel will be uncompetitive

What is at stake?

The European steel industry exports annually more than **€25 billion** in steel products and around **€40 billion** in downstream steel goods covered by the CBAM . Loosing export markets would strike a blow to an industry already suffering due to economic downturn, trade dumping and high energy costs. If companies don't remain competitive, they will not invest in the transition.

No more shifting emissions: tackle resource shuffling!

One of the main objectives of the CBAM is to encourage climate-friendly industrial production in countries outside the EU.

The CBAM only applies to the steel exported to the EU, not to the full carbon footprint of a company or country. What does this mean in practice? Companies can send their 'clean' steel to Europe while dumping CO₂-intensive steel elsewhere, which results in no real global emissions cuts, just creative accounting. We call this resource shuffling.

EU demand of flat steel: ± 80 MT Total imports: ± 20 MT EAF imports: ±5MT (But ±50 MT EAF production available in current exporting countries)

Total world flat steel production ±940 MT



Global overcapacity: also a climate disaster

While the EU steel industry is investing in low-carbon production to meet EU climate targets, a massive number of new coal-based furnaces are being built worldwide, locking in high global emissions for decades. According to the latest figures from the OECD, excess capacity will exceed 700 million tonnes by 2027.

CO₂ intensive

steel

Electric Arc

Furnace (EAF) steel FAF steel

flows to

Europe

- By 2026, an additional 60 million tonnes of global coal-based steel capacity will come online, equivalent to the total annual steel production of Italy and France combined.
- The steel industry is responsible for approximately 7-11% of global \mbox{CO}_2 emissions.
- Without urgent action to curb overcapacity, the EU's decarbonisation efforts will be undermined, making global climate goals impossible to achieve.

CO₂-intensive

steel

exchanges

If steel is covered, so should the products made from it

The CBAM places a carbon cost on steel, but not on many of the products made from it. This creates a dangerous loophole: steel-intensive goods like car components, machinery and household items can still be imported into the EU without paying any carbon price, putting EU producers of such products at a disadvantage. A fair transition means fair rules for all steel-based products.



A car component made with clean EU steel will be more expensive than a car component made outside the EU with carbon-intensive processes. However, the latter car component is **not subject to CBAM.**





To make the CBAM work and avoid carbon leakage, we must ensure imported products pay the same carbon cost as EU-made ones.

If not addressed effectively, thousands of companies that use European steel risk closing due to unfair competition or moving outside the EU to avoid carbon costs.

4

No discounts on emissions: stainless steel default values must reflect real emissions

If CBAM default values are set below representative emission levels, they create an incentive for companies to game the system—undermining the mechanism's effectiveness and distorting the market.

The specific case of stainless steel

Stainless steel is found in countless everyday products, from medical instruments to household appliances, but the CBAM's current approach to default values puts EU production at serious risk.

The European Commission calculates default carbon values for stainless steel based on an average of all steel qualities. However, this fails to reflect the reality of emission values associated to stainless steel imports.

70%

of stainless steel imports correspond to austenitic grades (mainly 304 grade, used for all objects of our daily lives, like kitchenware), which has a much higher carbon footprint than the Commission's general average.

± 6.5 CO2/t of steel is the carbon intensity of the most commonly imported stainless steel grade (grade 304)

± 3.5 CO2/t of steel is the theoretical median value of carbon intensities across all stainless steel grades

The gap between these values is significant— actual emissions are roughly double the current default value. If not fixed, the CBAM will fail to capture the true carbon intensity of imports, creating an unfair advantage for CO_2 -intensive producers outside the EU.



Indirect emissions under CBAM: no for steelmaking, yes for ferro alloys

Under the current electricity market design, prices are based on marginal pricing—meaning the cost of electricity is set by the most expensive energy source (often natural gas or coal). Even if a steel company uses clean electricity, it still pays the carbon cost of fossil-based power generation due to this pricing model. The current carbon leakage instrument for indirect emissions (indirect costs compensation) takes into account this pricing mechanism. Therefore, indirect costs compensation for steelmaking should be maintained and implemented in all member states.



Carbon footprint of a stainless steel coil



6

Instead, ferro-alloys have a different, unique situation. Firstly, they are not produced in the EU (ferro-nickel and nickel-pig iron), or to a very limited extent (ferro-chromium). Secondly, they have substantially higher embedded emissions in imported goods compared to EU production. In particular, EU stainless steel producers source most of their ferro-alloys from scrap, while ferro-alloys embedded in imported stainless steel come mainly from virgin materials. Therefore, indirect emissions of ferro-alloys (as CBAM goods and as stainless steel precursors) should be included in the CBAM.



Stop sneaky relabelling: apply the "melted and poured" rule

The CBAM should ensure that carbon-intensive steel is fairly priced, no matter where it is processed. More than 90% of emissions are related to the liquid steelmaking process. However, current rules define the origin of a product where the latest finished product is transformed. This loophole allows foreign producers to relabel CO₂ intensive steel as 'clean' before exporting it to the EU. CBAM should price carbon making every tonne count, not reward rebranding.





To avoid this, the rules of origin of the CBAM should be based on the clear and effective melted and poured principle: the origin of any steel good is where steel was melted and poured, regardless of where it is further processed.

7

What is inward processing?

The CBAM is designed to level the playing field for EU industries by ensuring that imported steel pays a fair carbon price. However, there is a major threat to this goal: inward processing.

Under inward processing, a company can import semifinished steel, process it in the EU, and export the final product, all without paying CBAM costs. This means that high-carbon steel can still enter the EU supply chain and compete unfairly against cleaner European steel. This creates a perverse incentive: European manufacturers that export their products will seek out the cheapest, most CO_2 -intensive steel for this part of their production.

If the CBAM is to work, it must cover all steel entering the EU supply chain—whether for domestic use or export.



CBAM benchmarks

In order to ensure equal treatment between importers and EU producers, the CBAM will be reduced to take into account the level of free allocation granted to the European industry. It is important that such CBAM benchmarks reflect the most climate-friendly technologies and processes, so that all operators have incentives to switch from the most carbon-intensive ones.

For instance, in the market segment of longs, EU products are mainly produced via the scrap electric arc route, which has the lowest carbon footprint. Similarly, EU stainless steel producers use scrap instead of virgin materials as the main source of ferro-alloys, allowing them to have a carbon footprint which is 4x to 5x lower than that of imported stainless steel.

Therefore, the CBAM benchmark of long products should always be based on the scrap EAF production route, even if imports are from more carbon intensive technologies. Similarly, for stainless steel the CBAM benchmark should take into account the very high scrap content of EU producers.

Time is of the essence: fix the CBAM as soon as possible or risk loosing Europe's clean steel future

Every loophole in the CBAM weakens investment in green steel and makes European producers less competitive. Policymakers must act now to ensure that CBAM delivers on its promises.

A strong CBAM is not just about fair trade—it's about Europe's future.

The backbone of Europe

The European steel industry is the foundation of Europe's clean economy, providing:

- Around 300,000 direct jobs and over 2.5 million indirect jobs depend on a strong, competitive steel sector.
- €215 billion in turnover per year, driving industrial growth across the EU.
- Essential for clean industries—from wind turbines and solar panels to electric vehicles, infrastructure and defense.

The CBAM must protect Europe's clean steel future—ensuring that imported steel pays the true cost of its emissions.



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