

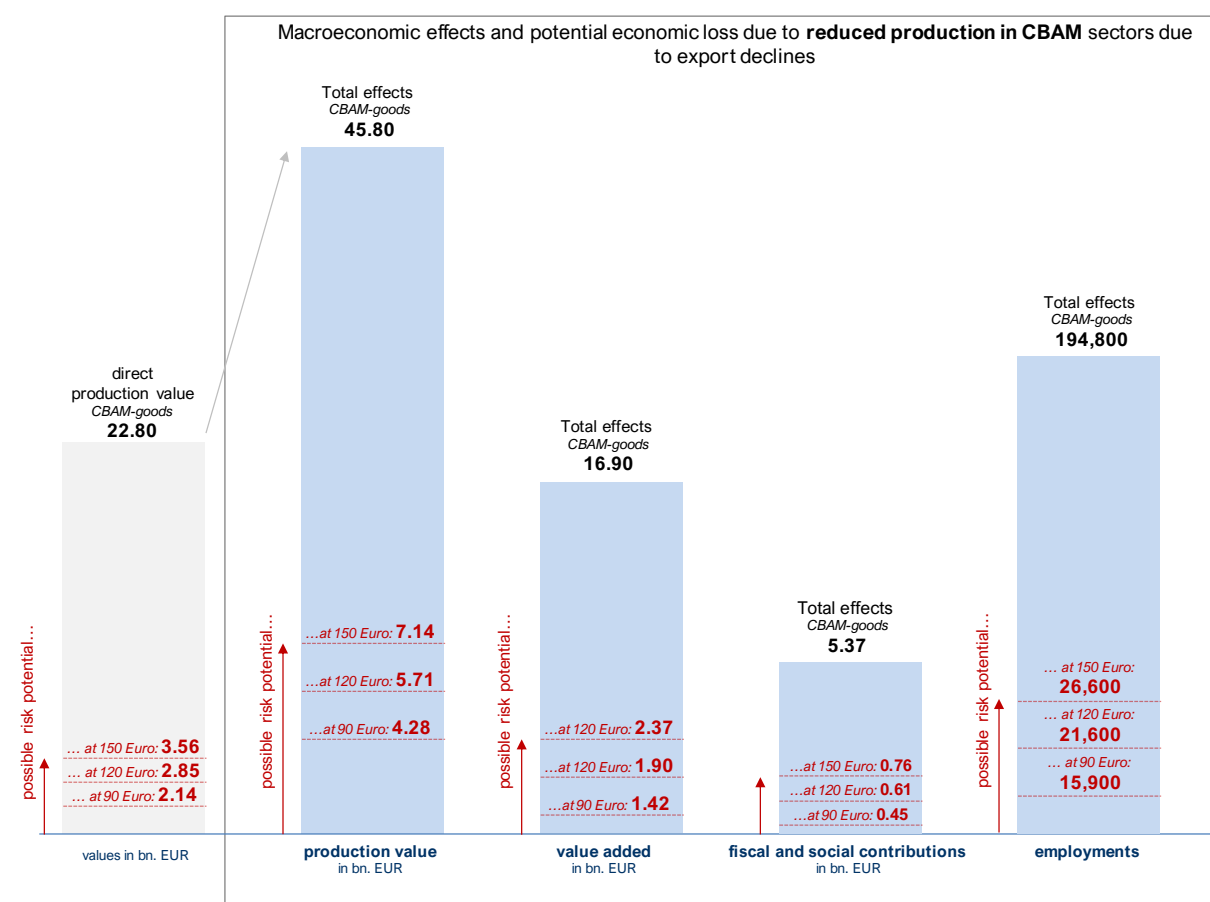
Export effects of the current CBAM 1.2 without changing the current CBAM-regulation

The additional burden on companies in the CBAM sectors can be expected to result in competitive disadvantages compared to other countries, particularly those without carbon pricing. These could manifest themselves, for example, in a decline in exports, as domestic goods become less attractive for other countries due to higher prices.

Due to their interconnectedness with other sectors, a decline in exports in the CBAM sectors would not only be limited to these sectors, but would also continue as an impulse via the upstream sectors, but also the rest of the economy. Depending on the areas of the Austrian economy affected by this, the potential threat to jobs and value creation multiplies.

In a scenario that assumes export-related additional costs – at a certificate price of EUR 90 – totalling EUR 2.14 billion¹, which cannot be passed on via the export of CBAM goods, this could lead to a potential direct decline in production in the amount of the additional costs (assuming that a lack of export demand leads to a reduction in production).²

Fig. 1: Potential economic loss due to reduced production in CBAM sectors due to export declines



Note: The potential risks of the respective certificate prices are compared with the economic effects of production in the CBAM sectors in 2021. The scaling between the columns is not uniform for reasons of visualisation.

Source: IWI (2023) based on Statistics Austria, Input-Output-Tables 2019.

¹ According to the Input-Output-Table, the weighted share of exports from the CBAM sectors totals around 95% (upper limit). This means that of the possible EUR 2.73 billion in additional costs, around EUR 2.34 billion would have an impact on exports, of which EUR 2.14 billion would be attributable to CBAM goods.

² For illustration and dimensioning purposes, the possible hazard potentials are estimated on the basis of the key performance indicators for 2021 and compared with the economic effects of the entire production of the CBAM sectors in this year.

In macroeconomic terms, a decline in export demand could result in a potential loss of EUR 4.28 billion in production value due to leverage effects. The domestic economy could lose EUR 1.42 billion in value added, which would be directly, indirectly and induced by a decline in exports of CBAM goods. With a certificate price at EUR 90, the reduced production could result in approx. 15,900 fewer jobs being secured in the Austrian economy and a reduction in fiscal and social contributions of EUR 0.45 billion.

Background and methodology

As part of the Fit for 55 initiative the European Emissions Trading System (EU ETS) is to be revised, which plays a central role in achieving the objectives defined therein. In addition, the Carbon Border Adjustment Mechanism (CBAM) should apply a CO₂ price based on the EU ETS to CO₂ emissions generated during the production of goods in countries without comparable climate protection measures. The CBAM is intended to replace the previous instrument of the EU ETS against carbon leakage, the benchmark-based free allocation of emission allowances. The regulation currently in force (hereinafter referred to as "CBAM 1.2") affects the following goods: iron and steel, aluminium, fertilisers, cement, electricity, hydrogen, and some downstream products from metal processing.

Based on the previous study³, the Institute of Industrial Research (IWI) has modelled an estimate of possible additional costs that the Austrian industry could face between 2026 and 2034 due to the removal of the free allocation of allowances ("inside-in") as well as due to burdens on the import side ("outside-in"). On the import side, additional costs can arise from the direct import of CBAM goods from third countries. Another possibility is via EU imports, provided the goods in question are related to third countries, i.e. the goods or parts thereof were imported by other EU states from non-EU countries and are priced with corresponding CO₂ surcharges.

In addition to the direct cost burden for primarily affected goods, price-pass through results in an indirect additional cost for downstream goods. The exemplary calculation of the price effects is based on the continued emissions level in 2022 with a constant certificate price of EUR 90 per tonne of CO₂. The level of emissions is compared with the European Commission's newly developed - non-linear - reduction pathway and the resulting additional costs are calculated. The costs shown could arise from unavoidable or difficult-to-reduce emissions from energy supply and unavoidable emissions from material conversion in industrial production.

The removal of free allocation would require additional allowances for emissions in 2034, which would result in direct additional costs for the CBAM goods concerned. These costs subsequently lead to cost-push effects, whereby the highest indirect price increases would be seen in the category of *Basic metals* and *Other non-metallic mineral products*. In addition, all *Buildings and construction works*, *Fabricated metal products* and *Machinery and equipment* would face price increases downstream. In total, the additional direct and indirect costs, due to the removal of the free allocation allowances ("inside-in"), would amount to around EUR 1.74 billion in 2034.

In addition, the carbon pricing of CBAM goods imported from third countries incurs further costs on import, resulting in a direct additional burden for the importer. The cost-push effects cause indirect price increases, inter alia, in the category of *Basic metals* and *Fabricated metal products* as well as along the downstream value chain in the category of *Other transport equipment*, *Machinery and equipment* and *Electrical equipment*. In total, the additional direct and indirect costs of imported CBAM goods from third countries (outside-in "non-EU") would amount to around EUR 408.6 million in the year 2034.

CBAM goods that are imported into the EU via other EU countries are also relevant for the analysis. The direct CO₂ surcharges incurred on imports are then passed on to downstream sectors in Austria

³ IWI (2022): Mögliche Auswirkungen des EU-CBAM auf die Wirtschaft Österreichs.

and abroad, which also makes imports of CBAM goods from the EU area more expensive. The proportion of CBAM goods related to third countries imported into Austria from the EU area can be presumed to be around 23%.⁴

EU imports of goods from third countries would also incur additional costs for relevant CBAM goods. In this case, the highest cost-push effects can be seen, inter alia, for *Basic metals*, *Fabricated metal products* and downstream *Machinery and equipment* and *Other transport equipment*. Overall, the direct and indirect additional costs of imported CBAM goods from the EU related to third countries (outside-in "EU") could amount to around EUR 584.8 million in the year 2034.

Tab. 1: Sum of additional costs at a certificate price at EUR 90 within the years 2026 to 2034 (CBAM 1.2)

at an EU-ETS price of EUR 90 p.t. CO ₂	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total (2026 to 2034)
<i>Reduction of free allowances/ Markup on CBAM certificates</i>	3%	5%	10%	23%	49%	61%	74%	86%	100%	
inside-in:										
costs of free allowances reduction (in EUR million)	43,4	86,8	173,6	390,7	842,1	1.059,2	1.276,2	1.493,3	1.736,4	7.101,8
outside-in "non-EU":										
costs through import charges for certificates (in EUR million)	10,2	20,4	40,9	91,9	198,2	249,2	300,3	351,4	408,6	1.671,2
outside-in "EU":										
costs through import charges for certificates (in EUR million)	14,6	29,2	58,5	131,6	283,6	356,7	429,8	502,9	584,8	2.391,7
Total additional costs (in EUR million)	68,2	136,5	273,0	614,2	1.323,9	1.665,1	2.006,4	2.347,6	2.729,7	11.164,6

Source: IWI (2023) based on the Input-Output-Tables 2019, Statistics Austria

Adding up the three additional costs triggered by CBAM 1.2 (inside-in, outside-in "non-EU", outside-in "EU") results in additional costs totalling EUR 2.73 billion for the domestic economy in 2034. The largest share thereof amounts to EUR 1.74 billion due to the additional cost resulting from the removal of free allocation allowances (inside-in). Over the entire observation and implementation period of CBAM 1.2 in the years 2026 to 2034, this would mean an additional burden totalling EUR 11.16 billion, considering the currently applicable reduction path.

⁴ To estimate the shares, the weighted average import shares from third countries of the respective CBAM goods for the three largest EU economies (Germany, France, Italy) are identified by using the UN COMTRADE database and the Input-Output-Table. The weighted average share of imports of CBAM goods from third countries in these three countries is around 23%.