



## The consequences of stricter CO2 pricing for Germany

Decarbonization efforts will lead to more expensive CO2 emissions and burden the German industry. We provide an overview of the latest developments in the two EU emissions trading systems (ETS 1 and 2) and the European CO2 border adjustment mechanism (CBAM). While border adjustments and the reduction of free allowances for the industry are likely to continue to weigh on the German economy, Germany is well prepared for emissions trading in the transport and building sectors.

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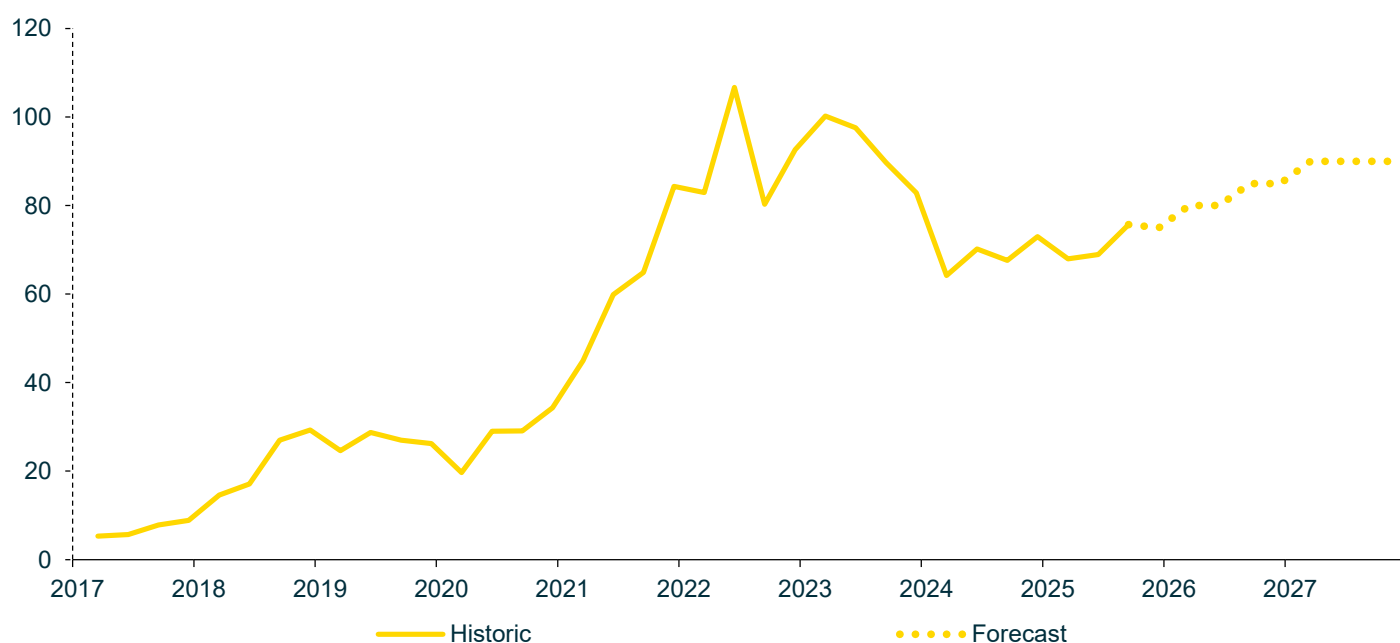
### Further burdens on German companies

In the coming years, the German economy will face further burdens as a result of CO2 pricing:

- **Tightening of the existing emissions trading system (ETS 1):** Currently, countries distribute around 40% of carbon permits free of charge under ETS 1, which now covers the energy sector, industry, as well as aviation and maritime transport within the EU. The remaining allowances are auctioned on an exchange. Starting next year, not only will the total amount of available allowances continue to be reduced by 4.3% annually (4.4% from 2028 onwards), but the share of allowances allocated free of charge will also fall in many of the industrial sectors covered. This is likely to lead to an increase in the market price of allowances in the future (Chart 1).

#### Chart 1 - The CO2-price will continue to increase

Price for a CO2 emission permit in Euro per ton, Commerzbank forecast beginning in Q4 2025



Source: Bloomberg, Commerzbank-Research

- **“Definitive phase” of the Carbon Border Adjustment Mechanism (CBAM):** For two years now, EU companies have been required to record how much CO2 was generated in the production of iron, steel, cement, aluminum, fertilizers, electricity, and hydrogen imported from outside the EU. Starting next year, they will now have to purchase CO2 certificates from the EU for an increasing portion of these imports, with the price based on the market price of ETS-1 certificates. Next year, certificates will have to be purchased for 2.5% of emissions generated abroad. This share is set to rise to 100% by 2034. In August, the European Commission denied rumors of a postponement and confirmed the start of the pricing phase for January 1, 2026.



- **Launch of an additional emissions trading system (ETS 2) for other sectors:** A new separate emissions trading system for the building and road transport sectors is likely to be launched in early 2028, one year later than previously planned.[1] Suppliers of fuels such as gasoline, diesel, and heating oil will in future have to surrender allowances for the sale of these goods. The entry price is 55 euros per ton of CO<sub>2</sub> emitted. Unlike ETS 1, there will be no free allocation of certificates in ETS 2; all certificates will be auctioned. In some countries, such as Germany, ETS 2 will replace the prices for CO<sub>2</sub> emissions already levied at the national level.

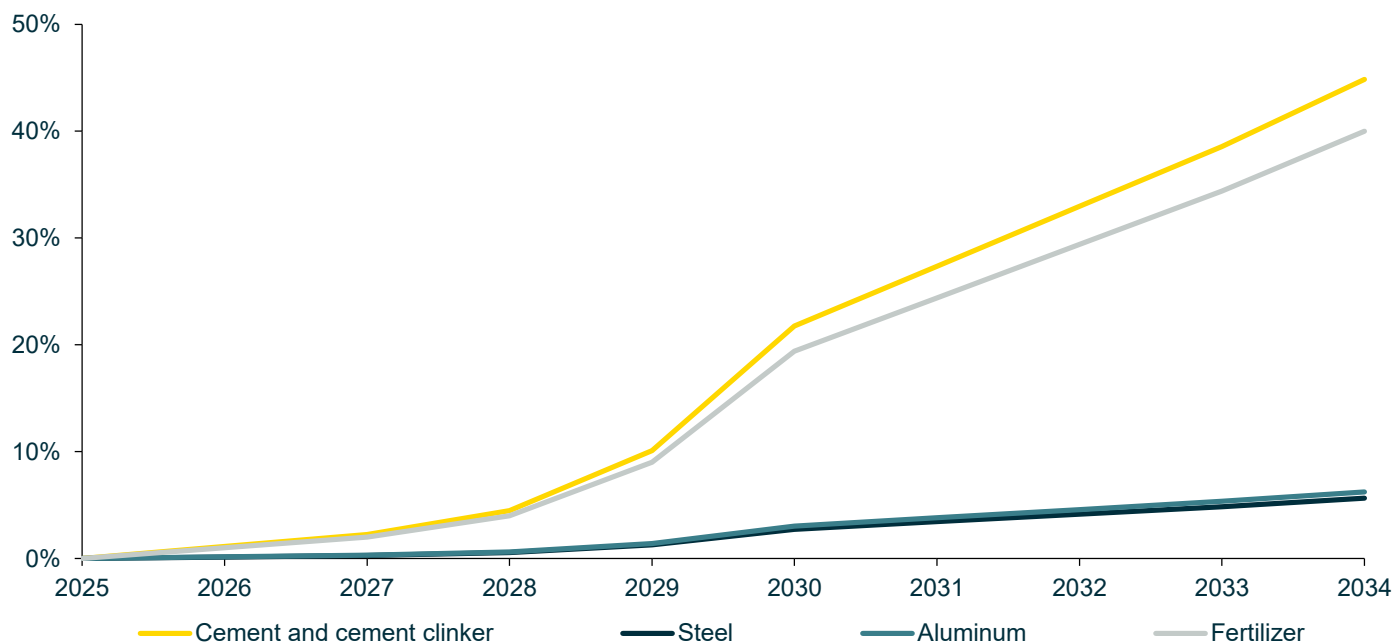
## CBAM and ETS 1 go hand in hand...

In addition to the general decline in emission allowances, the reduction in free allowances plays a particularly important role for industry. This reduction varies from sector to sector: While electricity producers have not received free allowances for several years now, the share of free allowances for intra-European air and maritime transport will fall to zero for the first time next year. Other CO<sub>2</sub>-intensive industries that face particularly high competition from abroad have so far received most of their allowances free of charge. These industries include the production of cement and cement clinker, iron and steel products, aluminum products, fertilizers, and hydrogen. This will come to an end next year. Starting with a share of 2.5% of emissions in 2026, companies will have to purchase an increasingly larger share of the allowances. In 2030, the share will jump to 48.5% and then climb steadily to 100% in 2034.

In order to protect these industries, which are particularly exposed to international competition (cement and cement clinker, iron and steel products, aluminum products, fertilizers, and hydrogen), from imports from countries with low CO<sub>2</sub> prices, a carbon border adjustment mechanism (CBAM) will be introduced. In this system, taxation on the CO<sub>2</sub> content of imports of these goods gradually increases – in parallel with the share of auctioned (i.e., not allocated free of charge) ETS 1 certificates in domestic production. Next year, certificates will initially be levied on 2.5% of the CO<sub>2</sub> content of imports. This implies a price increase of approximately 1% for imported fertilizers and cement compared to the import price in 2024 (Chart 2). In individual cases, however, the share of CO<sub>2</sub> content to be priced for an importer and the price increase may vary significantly.[2] Without improved CO<sub>2</sub> efficiency abroad and with an unchanged CO<sub>2</sub> price, this price effect would rise to around 20% by 2030. For iron, steel, and aluminum goods, the price effect would be significantly lower due to the higher price per ton of these goods.

### Chart 2 - The reduction of free permits picks up speed in 2028

The effect of CO<sub>2</sub> pricing on the price of various goods compared to the import price in 2024 assuming constant CO<sub>2</sub>-intensities at benchmark level and no CO<sub>2</sub>-pricing abroad, in percent



Source: Destatis, Federal Environment Agency, Commerzbank Research

## ... and reduce the competitiveness of industry

The advantages and disadvantages of CBAM (border adjustment) are currently being discussed. However, it is often overlooked that the disadvantages of ETS 1 are more significant than those of CBAM in this context. After all, ETS 1 affects a larger share of the German markets for cement, fertilizers,



iron, steel, and aluminum products than CBAM. The majority of these goods are produced in Germany or sourced from EU member states (both of which fall under ETS 1, not CBAM; Chart 3).

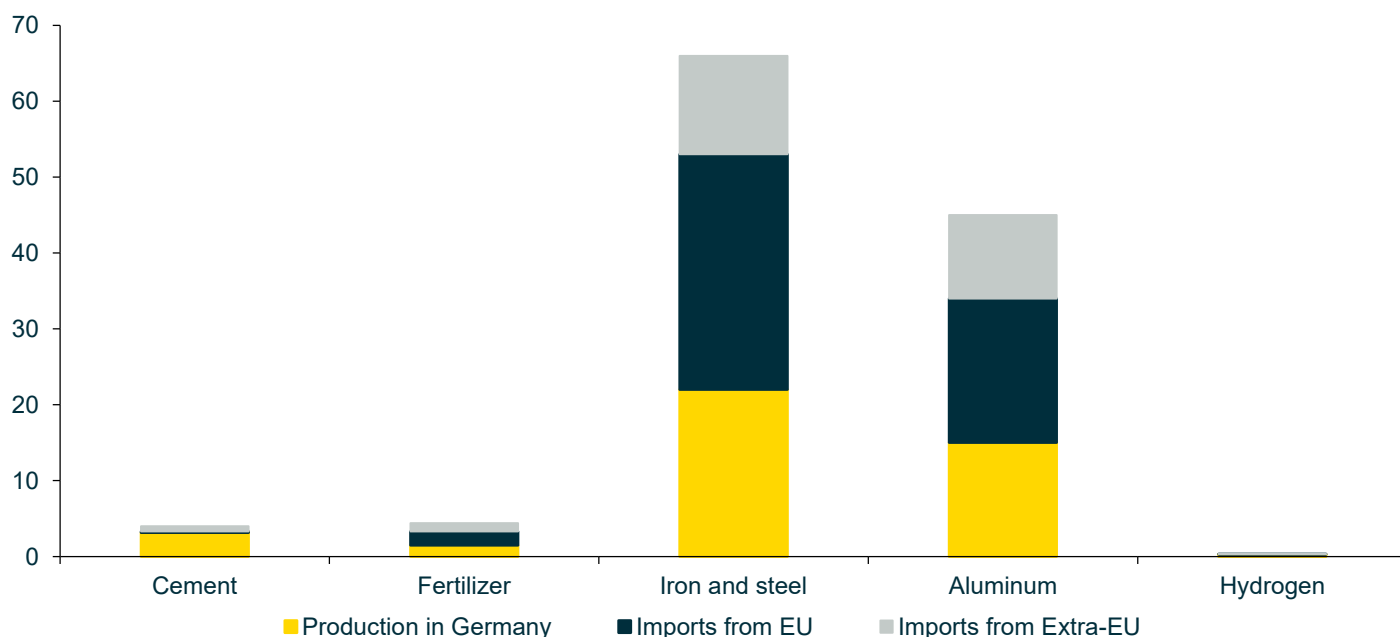
We summarize the burdens on German industry resulting from CBAM and ETS 1 as follows:

- 1. Substitution by end customers:** For consumers in Germany, not only will some imports become more expensive, but so will some domestically produced goods due to rising costs for intermediate products. This makes goods more expensive, especially when compared to services with a naturally lower CO<sub>2</sub> footprint. An example: Cement and steel products are included in the construction costs of houses. The CO<sub>2</sub> price makes new buildings more expensive compared to existing buildings. Demand for new buildings relatively declines and people prefer to rent apartments.
- 2. Competitiveness on the world market declines.** Unlike VAT, CO<sub>2</sub> pricing does not provide for reimbursement of CO<sub>2</sub> costs for exporters. Therefore, the reduction in free carbon permits makes the production of steel in Europe, for example, more expensive compared to foreign production, and the CBAM also makes imported steel more expensive. This increases the cost of manufacturing end products, as companies process metal goods into machines, cars, and other export goods. This reduces the competitiveness of European companies on the world market and is likely to have a negative impact on exports.
- 3. The competitiveness of domestic finished products is also declining domestically.** Even if the border adjustment worked perfectly for goods such as cement, steel, etc., it would only protect these intermediate products on the domestic market from international competition. This is because the border adjustment does not cover finished products. Domestic producers, however, have to pay more for intermediate products, while producers in other EU countries generally do not. This also reduces their competitiveness on the domestic market compared to imports from other EU countries.
- 4. No indirect effects taken into account.** The border adjustment covers the direct emissions resulting from the production of cement, steel, etc. However, greenhouse gases are also produced indirectly, for example in the production of electricity and raw materials such as iron ore. Although these are used in the steel manufacturing process, their greenhouse gas emissions are not covered by the CBAM. Despite the border adjustment, domestic steel producers therefore have a competitive disadvantage on the domestic market compared to competitors from countries without CO<sub>2</sub> pricing. This is because ETS 1 also covers indirect sources of greenhouse gases in domestic production.

As long as not all industries in all countries around the world introduce the same CO<sub>2</sub> price, there will always be a conflict of objectives between decarbonization and industrial competitiveness. The EU's pioneering role in the fight against climate change therefore comes at a price.

### Chart 3 - Domestic production outweighs imports

German production and imports to Germany of CBAM goods in 2024, in billions of euros; partly Commerzbank estimates



Source: Eurostat, Commerzbank Research



## Who will be affected by ETS 2?

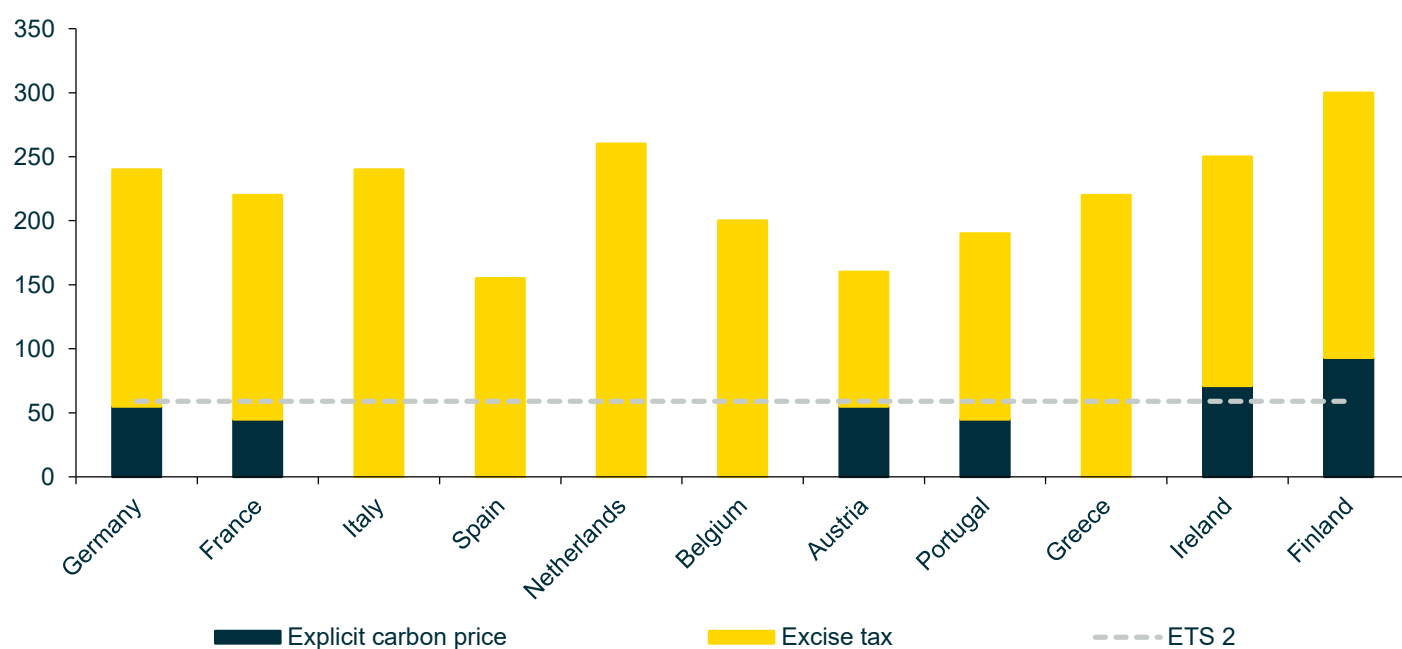
The third CO<sub>2</sub> pricing system is expected to be introduced in early 2028 – ETS 2, which will cover road transport and the building sector. In addition, it will cover industrial sectors that were not previously covered by ETS 1. Specifically, retailers of gasoline, diesel, heating oil, and other energy sources for transport and real estate will have to surrender CO<sub>2</sub> certificates when they put the fuels into circulation. In contrast to ETS 1 and CBAM, the entire CO<sub>2</sub> content will be priced from the outset. There will be no free allocation.

However, many countries have prepared for the second emissions trading system with national measures. Germany, for example, has already introduced emissions certificates for the relevant sectors at a price of €55 per ton of CO<sub>2</sub>. In France, a CO<sub>2</sub> tax is levied on the ETS 2 sectors, and Portugal has also introduced CO<sub>2</sub> pricing at the ETS 1 level for all sectors of the economy. In these cases, European emissions trading is likely to simply replace national measures. The additional burden on companies and consumers will then only result from the difference between the CO<sub>2</sub> price at the end of 2027 and the new ETS 2 price in 2028. This new CO<sub>2</sub> price will be determined on a separate exchange, which the European Central Bank estimates to be €59 per ton in the first trading year. CO<sub>2</sub> pricing in many countries is already in this range (Charts 4 and 5). Prices are likely to rise only slightly here. It is also striking that countries without explicit CO<sub>2</sub> taxes (such as Italy and the Netherlands) have introduced comparatively high excise duties on fossil fuels. Here, too, it is likely that countries will reduce excise duties in order to at least partially offset the CO<sub>2</sub> price from ETS 2.

Overall, the launch of ETS 2 is unlikely to change much for companies in many countries. Only in Spain and Belgium could heating oil become noticeably more expensive. Gasoline and diesel could also become more expensive in these countries if excise duties are not reduced.

### Chart 4 - There exist already high duties on on diesel and gasoline

Explicit and implicit prices on CO<sub>2</sub> emissions for gasoline and diesel through carbon prices and excise taxes, in euros per ton CO<sub>2</sub>

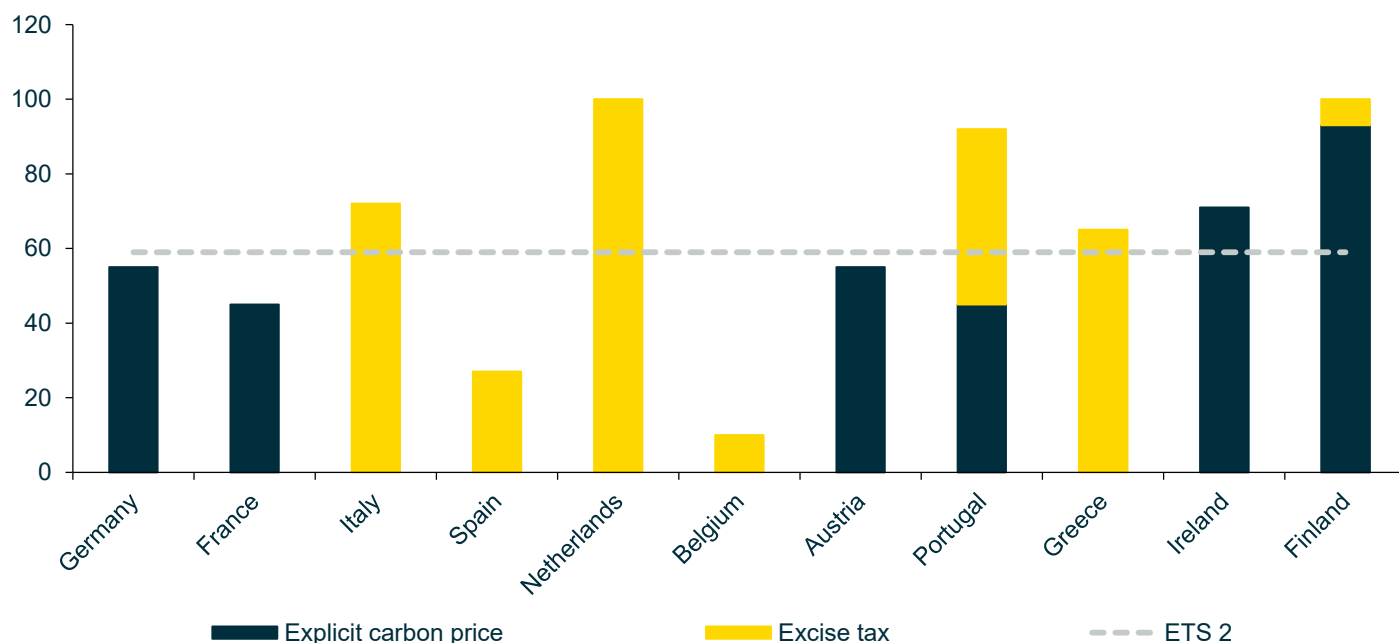


Source: European Commission Kommission, ECB, OECD, national sources, Commerzbank-Research



### Chart 5 - A carbon price on fossile fuels for heating would hit Spain and Belgium

Explicit and implicit prices on CO<sub>2</sub> emissions of heating oil and natural gas for household consumption through a carbon price and excise taxes, in euros per ton CO<sub>2</sub>



Source: European Commission Kommission, ECB, OECD, national sources, Commerzbank-Research

## Summary

German companies will face new burdens in the future due to CO<sub>2</sub> pricing. These result primarily from the shortage of allowances in ETS 1 and the reduction in the number of allowances distributed free of charge. Starting next year, border adjustment will accompany CO<sub>2</sub> pricing in these industries. This is likely to further reduce the competitiveness of German exports on the world market and also make end products manufactured in Germany more expensive compared to imported end products. In comparison, ETS 2 is likely to play a comparatively smaller role in the transport and building sectors.

The European Commission could, of course, freeze the status quo and continue to provide emission allowances completely free of charge for products that are subject to particularly strong international competition. Since these free allowances can be sold at a profit and their use therefore represents a cost, there is still an incentive to reduce emissions. However, with the adoption of "Fit for 55", the European Commission has committed itself to strengthening these incentives. In addition, the CBAM will be a source of revenue for the EU, and the emissions trading systems are a source of revenue for the member states. Furthermore, the EU continues to assume that other countries will follow suit in the fight against climate change and that European companies will gain a long-term competitive advantage thanks to the EU's pioneering role. At least at present, however, the political zeitgeist in many countries seems to be moving in a different direction.

[1] Originally, the ETS 2 was supposed to be introduced at the beginning of 2027. However, the European Commission recently proposed postponing its introduction until 2028. Although the European Parliament still has to give its approval, this is considered likely. ([Back](#))

[2] The actual increase in taxation for importers depends on three factors:

1. The share of taxable CO<sub>2</sub> content in the relevant year. This share ("CBAM factor") will rise from 2.5% in 2026 to up to 100% in 2034.
2. The deviation between the CO<sub>2</sub> content of imported goods and industry benchmarks. These benchmarks are set by the EU and have not yet been officially published.
3. CO<sub>2</sub> prices paid abroad during production.

In the following, we continue with the two assumptions regarding benchmark intensity and the lack of CO<sub>2</sub> pricing abroad. In individual cases, however, the proportion of priced CO<sub>2</sub> content for an importer may vary greatly due to the difference from the benchmark.

The calculation example for the price increase is also based on estimates for the average CO<sub>2</sub> intensity of the production of cement or cement clinker (0.61 tons of CO<sub>2</sub> per ton of product), steel (1.62 tons of CO<sub>2</sub>), aluminum (1.82 tons of CO<sub>2</sub>), and fertilizer (1.60 tons of CO<sub>2</sub>). Depending on the exact product and origin of the goods, the CO<sub>2</sub> intensity and import price may vary significantly. Furthermore, CO<sub>2</sub> intensity could decrease in the future. This is not taken into account in the calculation. ([Back](#))



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