



Introduction of a UK carbon border adjustment mechanism from January 2027 Consultation

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Questions in UK CBAM consultation

Question 7: Do you foresee any difficulties with the government's proposal to use product level default emissions values calculated in line with global average emissions weighted by the production volumes of the UK's key trading partners? Please outline.

We have several concerns about the proposed default emissions values. Our recent CITP Briefing Paper, [Default values in the UK's CBAM could hinder its climate ambitions](#), researched this question specifically, and we summarise the main concerns as follows.

- First, from the description of the method, the global average emission intensities should be calculated by using the "global average embodied emissions weighted by production volumes of key UK trading partners" (para. 6.17). However, if the national values were known, why would the UK apply the same values to all importers instead of adopting the EU's proposed approach, which tailors default values to specific countries? Furthermore, this approach indicates that the same default values will be applied to all importers. However, there is significant variation in emission intensities across source countries, even at a very disaggregated level, according to reports done by the Commission's Joint Research Centre (JRC), [Greenhouse gas emission intensities of the steel, fertilisers, aluminium and cement industries](#) and [Greenhouse gas emission intensities of hydrogen industry](#). If the UK applied the same default values to all importers, those from countries with a higher emission intensity would rely on the default values. It could pose a threat to market fairness for both UK domestic

producers and producers from other countries with a lower emission intensity. This threat could potentially be more serious in the cement and aluminium industries, according to our paper. Another concern regarding this approach is that producers in the countries with higher emission intensities than the averages, will have the greatest incentive to export to the UK. In contrast, cleaner countries will be disincentivised. Consequently, applying the same defaults to all importers may result in the replacement of relatively cleaner producers with those exhibiting higher emission intensities. This underestimation of emissions and potential replacement would weaken the effectiveness of the UK CBAM and impede the UK's efforts to achieve net zero.

- Second, the estimated national emission intensity, representing a country's average emission for each CBAM-good, could potentially favour less efficient producers at the expense of more efficient ones. The emission intensity can vary significantly across firms within one country. For instance, our paper shows that Indian firms in the basic metals industry exhibit this disparity. Their energy intensities, i.e., the ratio of their spending on fuel and electricity to their annual sales, range from 0.002 to 0.188. Around 40% of firms exhibit a lower energy intensity, ranging from 0 to 0.02. However, there are also firms with relatively high values. This variation is evident from the median value of approximately 0.025 compared with the mean value of 0.04. Consequently, the reliance on default values by less efficient producers could allow them to avoid facing a carbon price comparable to that encountered by local UK produce.

It is also worth highlighting that using an estimated national emission intensity ignores the emission differential between exporters and non-exporters, which has been documented in some academic research. As a result, the estimated emission intensities could potentially surpass the average emission intensities of exporters. If one could reliably identify exporting firms, one might set the default at the firm average of just these firms. However, we caution against using a refinement based solely on the average emissions intensity of exports, or even exports to the EU or UK. The problem with this refinement lies in the difficulty of identifying export production and its related emissions separately and thus it would be open to manipulation of counting only a very favourable subset of production was export-oriented.

- Third, using production weights to calculate the global averages could be problematic, given that these averages apply even to imports into the UK for which national data is available. To see this point, consider two countries, A and B, producing a CBAM good. Country A produces a large quantity with minimal exports to the UK, while country B produces less but exports more to the UK. By using production weights, country A would significantly influence the average. However, this average would not accurately reflect the average emission intensity embedded in the UK's imports. In contrast, using their imports into the UK as weights would yield a much fairer average among all importers. However, if the UK intended to apply the defaults only to countries that are not its key trade partners or key producers, taking a similar approach to the EU's, i.e. using production weights, may be more appropriate. Given these countries' exports of CBAM goods to the UK are very limited, probably below 10% of total imports, according to EU data, it is more reasonable to assume they have 'typical' global emission intensity.
- While it is understood that default values are only used in circumstances where actual emissions data are not available to importers (para. 6.14), it is easy to envisage contentious circumstances arising where parties disagree about the availability of data and application/pass-through of charges based on default values is viewed as punitive. Thus, applying global averages as default values when they exceed domestic averages poses a risk of leading to allegations of discrimination from trade partners.

Question 8: Are there alternative approaches to default emissions values the government ought to consider which neither undermine the environmental integrity of the CBAM nor are punitive in nature? If so, please provide detailed evidence.

Default values can present persistent challenges, yet an improved methodology has the potential to narrow the disparity between these values and actual data. We recommend establishing specific default values for the UK's key trade partners and key producers for each CBAM good.

In the EU Joint Research Centre (JRC) reports, [Greenhouse gas emission intensities of the steel, fertilisers, aluminium and cement industries](#) and [Greenhouse gas emission intensities of hydrogen industry](#), emission intensity of some countries are calculated for goods in these sectors. As we set out in our paper, despite the sample of countries covered being chosen to reflect EU import patterns, these reports provide extensive coverage of UK imports of goods defined in the UK CBAM, accounting for 86%, 93%, 82% and 88% of its CBAM-imports in iron & steel,

cement, fertilisers, and aluminium in 2023, respectively. The UK needs then further investigate only a few specific additional country defaults if key trade partners were omitted from the JRC report, and for the two additional sectors: glass and ceramics. Once specific country defaults are established, they would form the basis for calculating global averages weighted by the included countries' production levels. These weighted global averages would then be applied to other importing countries, for which, by definition, the authorities have no data on emission intensity. In doing so, these values more probably accurately depict the average emission intensity level for each CBAM good imported from these 'minor' suppliers.

In concrete terms, we recommend that for major trading partners and global producers, the UK adopt country-specific default per CBAM-good, and use a global production weighted average only for the countries where national data are not available. The UK can overcome the resource constraints which the consultation has identified by adapting its default values from existing data on national averages, for example JRC calculations.

Question 9: Do you have views on how a percentage based mark-up (in addition to global average emissions weighted by production volumes of embodied emissions intensities of the UK's key trading partners) could impact the use of default values and actual reported emissions data? Please outline.

Depending on the chosen mark-ups, this method has the potential to mitigate the risk of under-pricing these emission-intensive imported goods and incentivise the provision of actual emission data. However, determining the appropriate mark-up can be very challenging. A couple of aspects need to be considered carefully:

- a. The methodology of setting a mark-up.
- b. Will this mark-up differ across products/sectors?
- c. Will this mark-up differ across countries for each product/sector?

Setting an appropriate mark-up relies significantly on actual data and understanding of the difference between the default values and the actual emissions from those firms using default values.

While it is currently unclear how the percentage mark-up would be calculated, it is important to ensure that it be used to increase the accuracy of the alignment of the default value with actual, country-level product emissions. A mark-up figure that is viewed as arbitrary risks WTO non-compliance.

Question 10: Do you have any initial views on the considerations and/or aims of a future review into the use and functionality of default values? Please outline.

One objective of a future review into the use and functionality of default values should be to enable a regular update of the default values. The UK CBAM is intended to incentivise foreign producers to adopt greener technologies, thereby reducing emissions. Consequently, the default values must be adjusted adequately and in a timely manner to reflect these changes.

To achieve this, it is advisable to track the up-to-date data and calculate the ratios between imports relying on default values and total imports, in terms of both value and emissions. These ratios should also be analysed by country (at least for the key trading partners) and by product. This review should be conducted regularly, with due consideration given to the potential seasonality of some trade flows.

In concrete terms, we recommend regular updating of default values.

Question 12: Do you agree that verification of emissions should be performed by any body accredited by accreditation services which are part of the International Accreditation Forum (IAF), like UKAS in the UK? If not, please explain why not.

Emissions verification will require new training and capacity. There needs to be a feasibility assessment of whether these bodies are equipped to undertake this. It would be desirable for the UK to be able to utilise EU CBAM-trained third-party verifiers to increase the pool of accreditors and bring down verification costs, for the benefit of trading firms. (see below answers to Question 13).

Question 13: Would the market respond adequately to provide for the accreditation of verifiers by accreditation services and the verification of emissions independent verifiers?

If regulations in the UK CBAM differ from those in the EU CBAM, the verification of goods for the UK CBAM cannot be used for the EU CBAM. The market might be less likely to respond adequately due to the disparity in market size between the UK and the EU. In 2023, the UK imported £21 billion worth of goods defined by the UK CBAM, whereas the EU imported around £333 billion worth of CBAM goods defined by the EU CBAM. The latter market would be even larger if all countries complying with the EU ETS were considered. As a result, independent and efficient verifiers of emissions may prioritise providing services for EU-CBAM goods. Limited services for the UK-CBAM goods may drive up related costs for importers. Any potential relative shortage of supply of accreditation services, because the UK

markets is small relative to the EU market, will lead to queuing, an increase in the price for such services that would clear the market, which implies higher costs for businesses, or exporters avoiding the UK market altogether.

However, if the regulations regarding embodied emissions in the UK CBAM aligned with those of the EU CBAM, the accreditation could be the same for both CBAMs, although sharing the results would require the parties to agree to recognise each other's verification. This alignment would likely result in a more adequate market response and could also reduce administrative burdens for UK importers.

In concrete terms, we recommend that the UK ensure that its information requirements on emissions are identical to the EU's and that it urgently seek that the UK and EU recognise each other's verification results.

Question 14: Noting that the government is still developing policy in this area, do you have any initial views on the monitoring, reporting and verification (MRV) rules for the UK CBAM? Please outline.

While it is relatively straightforward to check the emission certification of CBAM imports, ensuring the certification matches the goods - that is, identifying the emissions embedded in the goods at inspection points - can be challenging. Therefore, robust third-party verification is important. This again underscores the need to assess the readiness of UK accreditation systems, and also ensure that UK importers can rely on EU-CBAM trained third-party verifiers.

The UK's proposed MRV procedures do not seem to include physical border checks on paperwork. As noted in [recent academic research](#), moving MRV and enforcement away from products and onto firms increases the potential for fraud and circumvention. To prevent this, the UK must ensure that it has access to good-quality firm-level data, that UK national authorities cooperate effectively with customs officials, and that dedicated revenue – most obviously, CBAM revenue – goes to resourcing effective monitoring and enforcement.

In concrete terms, we recommend that the UK upgrade its monitoring and enforcement at the firm level, recognising that this is likely to be more important than physical checks at the border.

Question 18: Do you agree that the CBAM rate calculation set out a fair reflection of the price paid in the production of goods in UK? If not, please explain why not.

Our primary concern regarding the calculation of the CBAM rate pertains to the free allowance adjustment. It is reasonable to exclude it from the CBAM rate. However, the challenge lies in determining the method for this adjustment.

- Since free allowances are allocated to plants by industries defined at a general level in the ETS, there is no direct correspondence between these allowances and CBAM goods. Plants can use their free allowances for emissions related to either CBAM goods or non-CBAM goods. Identifying the number of free allowances used for CBAM goods is challenging, making it difficult for the adjustment to accurately reflect the existence of free allowances available to the domestic industry in the context of CBAM goods.
- The EU CBAM will phase in gradually alongside a parallel phase-out of free allowances, which means that the CBAM will only apply to the proportion of emissions that are not subject to free allocation under the EU ETS. In comparison, calculating the free allocation adjustment for the UK CBAM is a very complicated process, as it involves determining the free allowances relative to a base – but what base? The flexibility to issue free allowances creates uncertainty for producers and traders and would be better abolished.
- There is another approach to free allowances which suggests that they should not be factored in at all. It is that since free allowances could be sold rather than used, they have a price (the resale value) and their issue can be viewed as a mere income transfer [to the amount of (the number of allowances) x (their price)]. The transfer helps the recipient firms stay in business but should not affect their decisions about how much to abate. If they use the free allowances, they are foregoing the receipt of cash. Clearly adopting such an approach will irritate trading partners and would likely be contested in the WTO, but it does suggest that it may be better to have a simple rule for phasing in the CBAM and phasing out allowances rather than a more sophisticated attempt to model the incentives they create.
- Even before the introduction of CBAM, the provision of free allowances to firms vulnerable to carbon leakage was understood to be actionable (subject to retaliatory ‘countervailing duties’) under the WTO subsidies agreement by many [legal scholars](#), and determined to be so by the [US Department of Commerce](#), as it constitutes a financial contribution from Government through foregone revenue. The maintenance of CBAM alongside free allocation increases the competitive advantage for domestic firms. It will likely constitute one of the most controversial elements of UK CBAM, which also risks undermining its environmental justification.
- The consultation states that the ETS Authority is responsible for all future decisions regarding ETS free allowances and notes that the UK is undertaking a consultation on future free allowance distribution (para. 3.03). Instead, we advocate that decisions about free allowances are integrated into UK CBAM

pricing and strategy. As set out above, to support decarbonisation and lessen methodological complexity, it seems important that the introduction of CBAM is met with a corresponding phased reduction of free allowances.

In concrete terms, we recommend that free allowances should be gradually abolished as the CBAM is gradually introduced.

Question 19: Does setting a CBAM rate for each sector on a quarterly basis strike the right balance between tracking the UK ETS market price and giving importers certainty for financial planning? If not, please explain why not.

To our knowledge, the UK Government has not explained why importers require the certainty of a quarterly price whereas domestic producers face an ETS price that fluctuates continuously. This connects to our answer to Question 20 which advocates having domestic producers and importers compete for carbon permits in the same market.

Vis-à-vis the EU approach, the UK's suggested relatively infrequent update interval, and characterisation of payments as indirect taxes rather than certificates, opens more possibilities for charges of discrimination during periods of volatile domestic ETS pricing, due to differences in the price and structure of charging.

In concrete terms, we recommend that the UK introduce more frequent price updates based on a system of certification; see Q. 20 for more detail.

Question 20: Are there any other considerations for setting the UK CBAM rate not set out above? Please outline.

The ETS is a cap-and-trade system: The authorities declare a total acceptable emissions level for domestic producers and issue the corresponding number of emission permits. Abstracting from a lot of detail, the Government is minded to make the CBAM a border charge with the price determined by the price of domestic permits over the preceding quarter. Importers and domestic producers face approximately the same emissions price and hence the same incentive to abate emissions; this, in turn, ensures that abatement is achieved in the least-cost manner. However, the price of emissions (permits) is determined not by UK demand for the goods causing emissions but only by the demand for such goods produced at home. Thus, the trade-off between emissions and other goods is effectively determined by only half the actors in the market: it is as if the price of milk was determined by purchases only by people who are lactose-intolerant who then

impose this price on everybody else. DEFRA estimates that over half of the emissions embodied in England's consumption of goods come from imports, so this is not *prima facie* satisfactory.

While using the same price for the UK and foreign emissions underpinning UK consumption is efficient in so far as it ensures that abatement is achieved at least cost, the current scheme is not efficient in terms of achieving the correct trade-off between emissions control and other objectives. That trade-off should reflect what consumers would give up to fit into the optimal level of emissions, but under present plans that is not evident because their demand for emissions via imports has no effect on the price.

Including imported emissions in the overall trade-off would be achieved by mimicking the EU to have CBAM permits for imports as well as ETS permits for domestic production and combining the markets for these into a single market with a single cap (obviously set at a higher level than the current cap for domestic production alone). [Tamberi and Winters \(2024\)](#) discuss this case and highlight one apparent perversity of the current approach. If technical progress in the UK reduced the demand for emissions, under the proposed plans this would reduce the ETS permit price to clear the ETS market and hence reduce the CBAM levy. This would reduce the price of imports and the resulting increase in the volume of imports (i.e. production abroad) could increase foreign, and hence global, emissions. That is, despite emission-saving innovation, global emissions would increase! Simulating these issues in a general equilibrium framework using plausible parameters partly based on the iron and steel sector, [Tamberi and Winters \(2024\)](#) show that this perverse outcome is likely even after all the spillover effects work through.

One might argue that, with good information, the Government could set the number of permits for domestic production in the ETS such that global emissions were not increased by technical progress. That is, in our specific case, that it reduces the number of permits as technical progress occurs. But information is never complete and across the several industries subject to the CBAM, technology will move at different, unpredictable and, at least for a period, unobservable ways. Thus the UK Government could never effectively select exactly the right number of permits to prevent the increase in global emissions, and even if it could, constantly tinkering with the number of permits is a recipe for uncertainty. The simpler way is to have a combined market for ETS and CBAM permits.

In concrete terms, we recommend that the UK adopt a system of certification for the CBAM rather than a charge levied at the border on entry and that, crucially the markets for ETS and CBAM certificates be combined.

Question 23: Are there additional considerations or processes that might facilitate the provision of information on the oversea carbon price from producer to liable person, including by mutual agreement with other jurisdictions? Please outline.

One could enter into mutual information exchange agreements such that governments reported to each other on carbon prices and exemptions by sector. Cooperative engagement with trade partners could also help facilitate the UK obtain, and maintain, high-quality data to inform the calculation of default values (see Q. 7 above) More broadly, it is important that the UK continue to engage in dialogue with international partners on cooperation on carbon pricing and measuring embodied emissions, through for example the G7 Climate Club dialogues, now co-Chaired by Chile and Germany with participation of 38 countries including the UK, and entering negotiations on ETS-linking with the EU.

In concrete terms, we recommend that the UK should seek information exchange agreements with a wide range of partners.

Question 33: Do you agree that an annual value of £10,000 is an appropriate level at which to set the minimum threshold? If not, please explain where you think it should be set and your reasoning.

We believe that a threshold is desirable in order to limit the burdens on small traders. The UK Government indicates that a threshold of £10,000 'will exclude around 60 per cent of potential registrations, while retaining more than 95% of emissions.' Before we can assess the appropriateness of this threshold we need more detailed data – specifically what the exclusion rate is for a variety of thresholds (say, £7,500, £12,500 and £15,000). Such data will be easily available from the sources and methods used to calculate the recommended threshold and should be published.

More generally, however, we believe that a threshold **defined in terms of emissions** might be more appropriate. Given that the UK CBAM is designed to address carbon leakage risk and promote decarbonisation, it makes sense to focus directly on the emissions embedded in imports rather than the monetary values of imports when setting the threshold. This approach can be easily implemented by using default values for emission intensities and import quantities.

This methodology would avoid the significant variability in emissions across CBAM-goods. For instance, applying the JRC's estimates of country-specific emission intensities (which is available in at the final part of our paper, [Default values in the UK's CBAM could hinder its climate ambitions](#)) and the quantity information of UK's CBAM-good imports in 2023, the emissions embedded in goods valued at £10,000 can range from 0.001 to 233.89 tonnes of carbon dioxide equivalent per £10,000 (tCO₂e/£10,000). To be specific, if the £10,000 were devoted to bars and rods, hot-rolled, in irregularly wound coils, of iron or non-alloy steel (the iron and steel product with the Combined Nomenclature code 72139990) from Switzerland, emission of 0.001 tCO₂e would be implied, but if it were devoted to aluminium foil, backed, of certain thickness (the aluminium product with the Combined Nomenclature code 76072099) from Egypt, emissions of 233.89 tCO₂e would be implied. This range becomes even more pronounced - 0.01 to 520.81 tCo₂e/£10,000, when average estimates of emission intensities are applied uniformly across all source countries.

In concrete terms, we recommend that the threshold be defined in terms of emissions, not value, calculated using default values. To simplify the process one could apply the global production weighted mean to all importers.

Question 37: Do you think that allowing 5 months from the end of the first accounting period until returns are due allows sufficient time for a liable person to obtain data about the carbon content of their CBAM goods? If you think a different period should operate, please explain why.

A proper information-collection stage prior to liability will be helpful compared to allowing an initial 5 months for reporters. With the introduction of a new policy, reporters need time to adopt the reporting process, for example, all the paperwork and the new reporting system. The new reporting system will also experience high volume of visits at the beginning. So, cramming all the work into 5 months makes little sense, neither for reporters nor for the Government.

Much as it may be politically inconvenient to admit it, the EU is using a 2-year information stage. The issues it has uncovered thus far demonstrate the value of having an information stage of at least one year. We recommend a one-year phase for the UK CBAM. It would be beneficial if this one-year information collection stage could commence in January 2026. However, if the UK CBAM were aligned with the EU's, this stage could be bypassed, because the EU would have already dealt with the teething problems.

In concrete terms, we recommend that the UK has a year's information stage, or better, that it aligns its ETS and CBAM with the EU's so that it can benefit from the EU's existing information phase.