

SHOULD THE UK INTRODUCE A BORDER CARBON ADJUSTMENT MECHANISM?

SAM LOWE, JANUARY 2021



ABOUT THIS PAPER

This paper was written by Sam Lowe at the request of the Zero Carbon Campaign. If you have any comments or questions regarding its contents, please contact zeroc@publicfirst.co.uk.



Executive summary

- **If the UK is to achieve a 68 per cent drop in emissions by 2030, and net zero emissions by 2050, the domestic carbon price will need to rise significantly, and soon.** However, a large increase in the domestic carbon price, alongside other measures necessary to achieve the UK's climate goals, risks provoking a political backlash – particularly from those who fear the policies will damage the competitiveness of British companies and lead to carbon leakage.
- **In an ideal world, all countries would agree to a global minimum carbon price. But, the UK would be naïve to rely on this.** As such, the UK Government should consider introducing a border carbon adjustment mechanism (BCA), which would see a charge or levy proportionate to the carbon content of imported goods applied at the UK's border.
- **A BCA would neuter the arguments of those claiming that stringent UK measures to reduce carbon emissions will result in carbon leakage.** Also, with the EU and US considering the introduction of a BCA, the UK should engage in discussions with both in the run up to COP26 to ensure the respective BCA approaches are compatible.
- **The paper explores three BCA approaches, all of which could be used exclusively or, if applied to different sectors/products, in tandem:** a BCA linked to a carbon charge levied at the point of consumption; a BCA linked to a carbon charge levied on upstream producers; and a BCA linked to a UK Emissions Trading Scheme (UK ETS).
- **But a UK BCA is not without its risks. A UK BCA could face legal challenge from other WTO members, prove difficult to implement in practice, increase costs for importers and consumers, and damage the UK's international relationships.** To ensure a BCA is compliant with the UK's legal obligations, the UK should ensure it is non-discriminatory (treating domestic and foreign products alike), and be introduced first and foremost for the purpose of effectively reducing global carbon emissions.
- **To reduce the risk of potential countermeasures and trade disputes, the UK should ensure that the process for determining whether third country carbon pricing regimes are equivalent to the UK's,** and therefore exempt from the BCA, is transparent and open. In order to reduce the compliance burden placed on business, the UK Government should shoulder much of the financial and administrative cost.
- **If the UK does go ahead with introducing a BCA, it will need to decide which products the BCA should apply to,** how precise the BCA should be, whether it will replace existing free allowances or not, whether UK exporters should receive a rebate, if developing countries should be excluded, and what the revenue should be used for.

Introduction

A stronger carbon price is a pre-requisite for the UK achieving a 68 per cent drop in emissions by 2030,¹ and net-zero emissions by 2050.

The UK will also need to extend carbon pricing to sectors beyond those currently covered by the existing emissions trading system (UK ETS), such as heating and agriculture.² Following Brexit, the UK has announced it will introduce its own replacement for the EU ETS, and intends to include stricter requirements and greater fines.³ But the Zero Carbon Commission has recommended it go further still, and levy a carbon charge of £75/tCO₂ on all upstream producers by 2030.⁴

However, a significant increase in the domestic carbon price, alongside other measures necessary to achieve the UK's climate goals, risks provoking a political backlash – particularly from those who fear the policies will damage the competitiveness of British companies.

In theory, a high carbon charge could lead to UK producers being undercut in the domestic market by competitors selling from countries that do not levy an equivalent charge. It could also reduce the competitiveness of UK exporters selling abroad and lead to British companies shifting operations to countries more tolerant of pollution. And while British public opinion is broadly in favour of a carbon charge – and the Government's target of net zero emissions by 2050 – over half of those who oppose 'net zero' do so because they fear measures to combat climate change will damage the economy.⁵

If a high carbon charge led to British companies moving operations abroad, or British consumers consuming more carbon-intensive imported goods, it would also fail to contribute to a reduction in global emissions. Rather, the high carbon charge would just lead to the emissions being shifted to another jurisdiction.

In an ideal world, all countries would work together to address climate change, and agree on a global minimum carbon price. However, it would be naïve to rely on this happening, especially as some countries might attempt to eke out a competitive advantage for themselves by dragging their heels.

¹ The emissions reduction target specified in the UK's 'Nationally Determined Contribution' under the Paris Agreement.

² The ETS applies to some power stations and other combustion plants, oil refineries, coke ovens, iron and steel plants, and factories making cement, glass, lime, bricks, ceramics, pulp, paper and board.

³ HM Government (2020). Participating in the UK Emissions Trading Scheme. Available [here](#).

⁴ The Zero Carbon Commission (2020). How carbon pricing can help Britain achieve net zero by 2050. Available [here](#).

⁵ The Zero Carbon Commission (2020). Annex 1: Green recovery and environmental policy. Available [here](#).

As such, the UK should consider introducing a border carbon adjustment mechanism (BCA) which would see a charge or levy proportionate to the carbon content of imported goods applied at the UK's border. If successfully implemented, a BCA could ensure the effectiveness of the UK's climate policy; guard UK companies against unfair foreign competition; and placate those at home who view climate change mitigation as a threat to their economic wellbeing.

The UK would not be alone in considering the introduction of a BCA. The EU intends to introduce a BCA and the European Commission will table specific proposals in the second quarter of 2021.⁶ In the US, the incoming Biden administration has said it will “impose carbon adjustment fees or quotas on carbon-intensive goods from countries that are failing to meet their climate and environmental obligations.”⁷

With both the European and American BCA discussions at an early stage, the UK should engage with, and attempt to shape the international BCA debate now, rather than sit it out and risk being bounced into adopting a mechanism designed by others at a later date. If the EU and US do end up adopting a BCA, and the UK does not, there is an additional risk that carbon-intensive products that would otherwise have been sold on the European and American markets end up being dumped onto the UK's.

However, the adoption of a BCA is not without its challenges. These include questions about its design, legality, cost and complexity, and political impact on an already fractious international rules-based trading system. There are also specific questions the UK Government would need to answer.

These include:

- *What approach should the UK take to setting a domestic carbon price?*
- *Does the UK want to introduce a BCA?*
- *What products should a BCA apply to?*
- *How precise should the BCA be when setting the import carbon price?*
- *Should a BCA replace existing free allowances, or work alongside?*
- *Should UK exporters receive a rebate?*
- *Should the BCA apply to imports from developing countries?*
- *What should BCA revenue be used for?*

This paper will attempt to assess the merits of a UK BCA, address some of the challenges, and explore the questions posed above.

⁶ European Parliament (2020). Legislative Train Schedule. Available [here](#).

⁷ Joe Biden (2020). The Biden Plan for a Clean Energy Revolution and Environmental Justice. Available [here](#).

What is a BCA?

A simple BCA works as follows:

- Country A applies a domestic carbon tax on producers (i.e. £20/tCO_{2e}).
- In order to ensure that domestically produced goods are not placed at a disadvantage vis-à-vis imported goods, Country A levies an equivalent tax on products imported from countries that do not have equivalent levels of carbon pricing in place.
- This ensures a level playing field for domestic producers, and that all goods consumed in the UK are subject to the same climate-related costs.

Carbon leakage and the UK

The risk of carbon leakage – when companies move their factories from countries and jurisdictions with strict emission regimes to those with weaker ones so that they can produce goods more cheaply – has long been used to justify opposition to new measures to combat climate change. And the UK efforts to achieve net zero by 2050 are already being questioned by some MPs on the basis they could damage the British economy.⁸

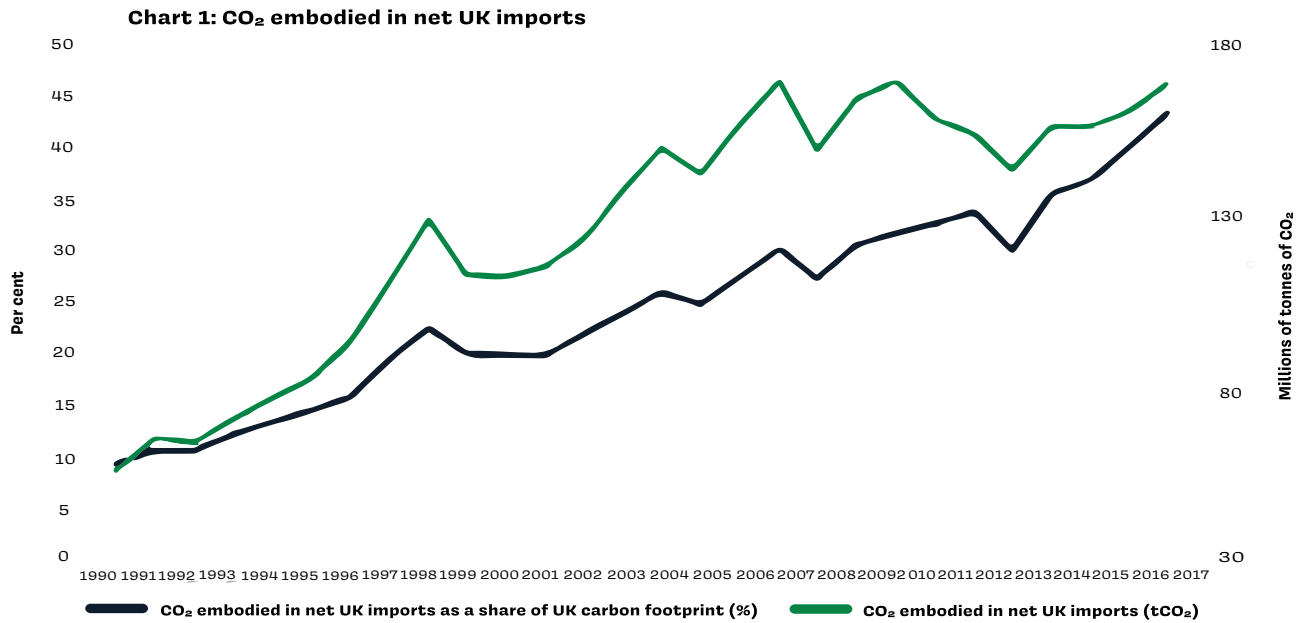
There is some academic evidence to support concerns about carbon leakage. A meta-analysis of studies estimating the impact of comparable climate policies finds the typical range of carbon leakage ratios (how much emissions rise outside of the observed country as a result of a policy) to be a non-negligible 5 to 25 per cent.⁹

And it is true that the share of CO₂ embodied in net imports as a share of the total UK carbon footprint increased over the last two decades: from 10 per cent in 1990 to just over 40 per cent in 2017 (Chart 1). However it would be wrong to assume that this shift was driven by climate policy alone, if at all. There are multiple other factors to consider such as the newfound access to cheap labour following China opening itself up to global trade. Also, from 2003 to 2017 the numeric amount of CO₂ embodied in net UK imports actually remained fairly constant (the same in 2017 as it was in 2007: 169 million tonnes of CO₂), with the change in the total share being attributable to a steep fall in domestic emissions.¹⁰

⁸ Example [here](#).

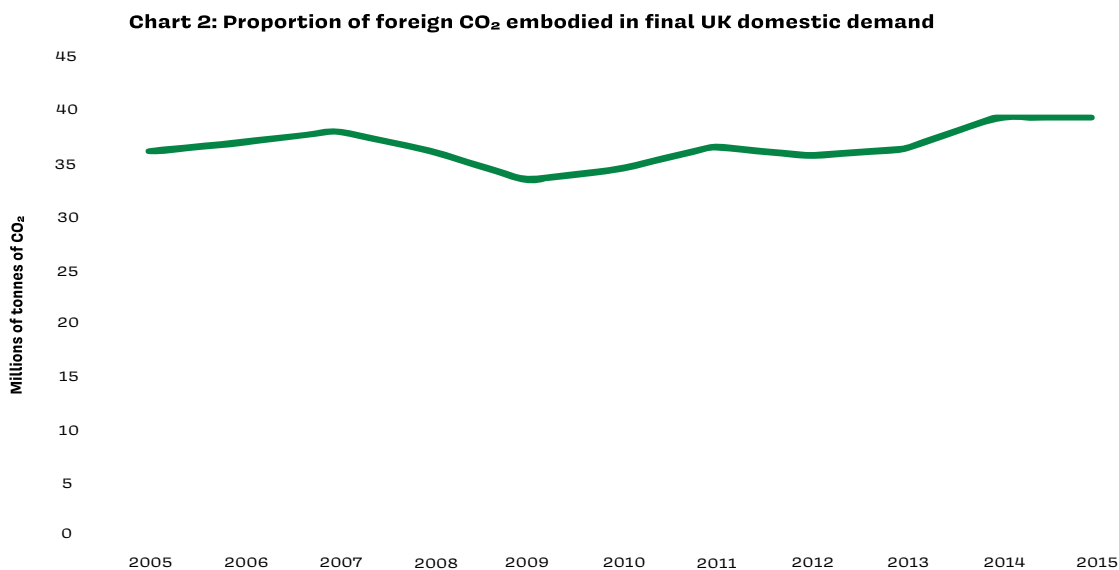
⁹ European Parliament (2020). Briefing: Trade-related aspects of Carbon Border Adjustment Mechanisms. Available [here](#).

¹⁰ Global Carbon Project (2020). Data sources. Available [here](#).



Source: Author's calculations based on Global Carbon Project data (2019).

We can also look at this through a different lens: of all of the CO₂ emitted while making goods consumed in the UK, how much is emitted abroad? If carbon leakage is happening, you would expect the foreign share of CO₂ embodied in final UK demand to increase over time. Here we can see that proportion of foreign CO₂ embodied in final UK domestic demand has remained fairly stable (if higher than the EU average of around 25 per cent) since 2005 (Chart 2). This suggests that despite new measures such as the EU ETS coming into force during the observed period, there was little in the way of carbon leakage. Yet the lack of observable carbon leakage could be due to the price of ETS permits being relatively low for the duration of the observed period – despite permit prices peaking at €30.5 per tonne of CO₂ in 2008, by 2013 they had fallen to around €3, recovering to only around €8 by the end of 2015.¹¹



Source: Author's calculations based on OECD, carbon dioxide emissions embodied in international trade (2020).

¹¹ Ember (2020). Carbon Price Viewer. Available [here](#).

Broad assessments can also disguise acute impacts. For example, European sectors such as the fossil-fuel industry, steel and other metals, and chemicals are expected to perform worse in a world in which Europe takes unilateral, rather than global, action to reduce emissions.¹² And while the impact of a single factory, or industry, being moved offshore might not register as economically significant on a national scale, it can still be politically significant, particularly in a country like the UK where MPs represent regional constituencies.

How much would a levy on CO₂ embodied in imports cost?

In a paper attempting to estimate the impact of a BCA on the EU, the Bank of Finland estimates that imposing a \$28 per tonne import tax on the CO₂ embodied in imports would correspond to an average tariff (and therefore increase in the price of imported goods) of around 2 per cent.¹³ The highest tariffs would be applied to India (4 per cent), Russia (4 per cent) and China (3 per cent) due to their relatively carbon-intensive export mix.¹⁴

If the carbon price were to almost triple by 2050, as recommended by the IMF, the levy on CO₂ embodied in imports would correspond to an average tariff of around 6 per cent, with spikes of around 12 per cent. However, in practice it would be lower if some sectors were excluded from the import levy.

While there is little historic evidence of large-scale carbon leakage from the UK, this does not mean it would not happen if the UK's carbon price were to increase. If the UK raised its carbon price to £75/tCO₂, and other countries did not do the same, the risk of carbon leakage would no-doubt increase. There is also a political dimension to the argument – whether carbon leakage is a real risk or not, many people believe it is. And if the UK Government is to achieve its goal of net zero emissions by 2050, it will need to be able to assuage their fears.

What could a UK BCA look like?

A BCA is only internationally justifiable vis-à-vis the UK's WTO commitments if it applies to sectors which are also subject to a domestic carbon pricing. The UK has indicated it will introduce its own version of the EU's ETS (UK ETS), and left open the possibility of linking it up with the EU's in the future. Below I will discuss three different BCA designs, with the third design (**BCA 3**) being most relevant to the UK. However, all could theoretically be used exclusively or, if applied to different sectors/products, in tandem.

¹² Centre for European Reform (2019). Should the EU tax imported CO₂? Available [here](#).

¹³ Bank of Finland (2020). CO₂ emissions embodied in EU-China trade and carbon tax. Available [here](#).

¹⁴ While this study focused on the EU-wide impact, there is little reason to think the figures would be significantly different for the UK.

BCA 1: a consumption levy

The simplest approach to introducing a BCA would be for the UK to levy a carbon charge on all individual products at the point of consumption, rather than on producers, no matter where in the world they come from. For example, if a carbon charge of £1,000 was levied on all cars sold in the UK, this would apply no matter whether the car was produced in the UK or elsewhere. Similar to VAT, the charge would be payable upon import, and refundable upon export. This approach instantly creates a level playing field and is non-discriminatory: products produced abroad receive the exact same treatment as those produced in the UK.

While this is the simplest (and least legally contentious; something that will be discussed later in the paper) means of introducing a BCA, it would require the UK to fundamentally re-think its approach to carbon pricing, which currently tends to focus on producers. And such a fundamental overhaul of the existing regime may not appeal to UK policy makers or businesses. However, in the UK context it would still remain an option for those sectors not currently subject to carbon pricing measures, such as on food products.

BCA 2: a production charge

If the UK instead introduces a carbon charge on industrial producers – as recommended by the Zero Carbon Commission – a BCA would require the importer to pay a duty equivalent to the carbon cost borne by the average UK-based company when producing a similar product. For example, if a UK carbon charge resulted in an average cost to domestic steel producers of £50 per tonne of steel, the same would apply at the border to imported steel.¹⁵

In this scenario the full BCA would only apply to imports originating from countries not deemed to have an equivalent carbon price to the UK, or products that the importer is unable to certify were produced more carbon efficiently than the internal UK average. Goods imported from a country deemed to have an equivalent carbon price, or certified as being produced more carbon efficiently than the internal UK average, would be exempt or subject to a lower BCA charge.

BCA 3: linked to an ETS

If the UK continues to set the domestic carbon price via an ETS, the BCA design would be similar to that applied alongside a carbon charge. However, in this scenario the importer would be required to pay an import duty equivalent to the cost faced by the average UK-based producer when purchasing the necessary ETS carbon permits to produce a similar product domestically. For example, if a UK ETS meant that the average British steel producer had to buy two ETS permits (assuming a permit for 1 tonne of CO₂ cost of £25) to produce one tonne of steel, at the cost of £50, a tonne of imported steel would also face a £50 levy at the border. In this scenario the BCA would also only apply to imports originating from countries not deemed to have an equivalent carbon price to the UK, or products the importer is unable to certify were produced more carbon efficiently than the internal UK average. Goods imported

¹⁵ Whilst a BCA could theoretically be levied in the same way as a domestic carbon price – placed on imports based on the assumed emissions intensity of their production (£/tCO_{2e}) – this is a relatively imprecise science, and not something the UK will necessarily have accurate information on. Under World Trade Organisation law, such estimations could be considered as discrimination against or between foreign producers on an ‘arbitrary or unjustifiable’ basis, which is not permitted under Article XX GATT. It is therefore much simpler to apply (and to justify) a cost which directly reflects that borne by domestic producers.

from a country deemed to have an equivalent carbon price, or certified as being produced more carbon efficiently than the internal UK average, would be exempt or subject to a lower BCA charge.

Challenges facing a UK BCA

While a BCA is often viewed by economists as the most efficient way to approach the issue of carbon leakage, in practice its introduction will prove challenging. A UK BCA could face legal challenge, prove difficult to implement in practice, increase costs for business, and damage the UK's international relationships. But while the challenges require careful thought and consideration, they are far from insurmountable.

Legal difficulties

A UK BCA would be vulnerable to challenge from other members of the World Trade Organisation (WTO), particularly if the additional BCA-induced cost of exporting to the UK reduced the relative competitiveness of foreign products vis-à-vis domestic. BCAs are an untested area of WTO law, and opinions differ as to their potential legality.

For a UK BCA to have the best chance of facing down legal challenge it should not discriminate in favour of domestically produced goods. In other words: the carbon price applied to imports can be no greater than that applied domestically. Jennifer Hillman, a former WTO appellate body judge, says that “the key is to structure any accompanying border measures as a straightforward extension to the domestic climate policy to imports.”¹⁶

To this effect, as a component part of the domestic measure, a consumption levy (**BCA 1**) is the approach least likely to encounter legal difficulty. If the UK were to levy a carbon duty on all products (or a specific selection of product types) only when they are consumed in the UK, no matter where the products originated, then it would have little trouble demonstrating that the measure was non-discriminatory.

However, for a BCA linked to a carbon charge (**BCA 2**) or ETS (**BCA 3**) it is difficult to argue that a charge imposed at the border is a straightforward extension of the domestic climate policy: the domestic measure is levied on the producer while the border measure is levied on the importer/consumer. Here the UK could argue that although BCA 2/BCA 3 are not a direct extension of the domestic measure, Article II.2 (a) of the WTO's General Agreement on Tariffs and Trade (GATT) allows for a WTO member to levy an additional tax on imports so long as it is equivalent to the cost imposed on domestic industry by an internal tax or similar measure.

A UK BCA should also be designed first and foremost with the UK's climate objectives in mind, and for the purpose of effectively reducing carbon emissions. This would ensure that even if the BCA is found to be discriminatory, it may still be justifiable under the provisions of GATT Article XX (paragraphs b and g),¹⁷ the environmental exception.

¹⁶ Climate Advisers (2013). Changing Climate for Carbon Taxes: Who's Afraid of the WTO? Available [here](#).

¹⁷ In order for a trade-related environmental measure to be eligible for an exception under Article XX, paragraphs (b) and (g), a member has to establish a connection between its stated environmental policy goals and the measure at issue. The measure needs to be either: necessary for the protection of human, animal or plant life or health (paragraph (b)) or relating to the conservation of exhaustible natural resources (paragraph (g)). From: World Trade Organisation GATT Exemptions. Available [here](#).

Yet the risk of a legal challenge should not be overstated. Whether another WTO member brings a challenge or not is ultimately a political decision, and cases can take years to conclude. The UK is also less likely to face a legal challenge if the BCA has been developed alongside other international partners.

Determining equivalence

To reduce the risk of opposition, and potential countermeasure and disputes, the UK should ensure that the process for determining whether foreign carbon pricing regimes are equivalent to the UK's, and therefore exempt from the BCA, is transparent and open.¹⁸ The process itself should focus explicitly on outcomes. If another country can demonstrate that producers within their jurisdiction are subject to an effective carbon price equivalent (or within a reasonable tolerance, similar) to the UK's, the precise design of their scheme should not matter. The UK should also allow countries to appeal its decisions via an independent arbitration process, and put in place measures making it as easy as possible for imports of carbon efficiently produced products to be either certified as exempt from any BCA charges, or subjected to lower charges based on their proven carbon intensity.

If some countries were to be exempt from the UK's BCA, the UK would also need to introduce prescriptive origin-based criteria to determine the provenance of imported products. This need not be overly complicated, and could be assigned using the pre-existing method for determining non-preferential rules of origin, which all UK importers already have to follow.

Cost and complexity for business

Calculating the quantity of carbon embedded within a given product can be costly and difficult, particularly if the product consists of inputs sourced from many different countries and regulatory jurisdictions. For some importers, the cost of demonstrating the true carbon content of a product – in order to demonstrate that it qualifies for an exemption from (or reduction in) the BCA cost – may be higher than simply paying the carbon levy at the border. And if low-carbon imports were unnecessarily hit with the carbon charge because the cost of proving that it should not apply is too high the UK could justifiably be accused of unfair discrimination. Importers might also be disincentivised from switching to lower-carbon products if the benefits of doing so are not easily claimed.

In order to reduce the compliance burden placed on business, the UK Government should shoulder much of the financial and administrative burden, particularly for small and medium-sized companies. This could involve the UK funding the creation and continued support of third-party certification bodies able to provide an objective assessment of a company or product's CO₂ emissions. The UK must also offer clear guidance as to the exact methodology that should be used by companies in various sectors when calculating the carbon intensity of their products.

¹⁸ Equivalence should take into account lower carbon prices where possible, with a BCA being applied on a sliding scale. For example, if the producer of an imported product has already paid a low (non-equivalent) carbon price in the country of origin, they would not be subjected to the full BCA cost - they would instead be subjected to a reduced rate that accounts for a domestic carbon price already having been paid.

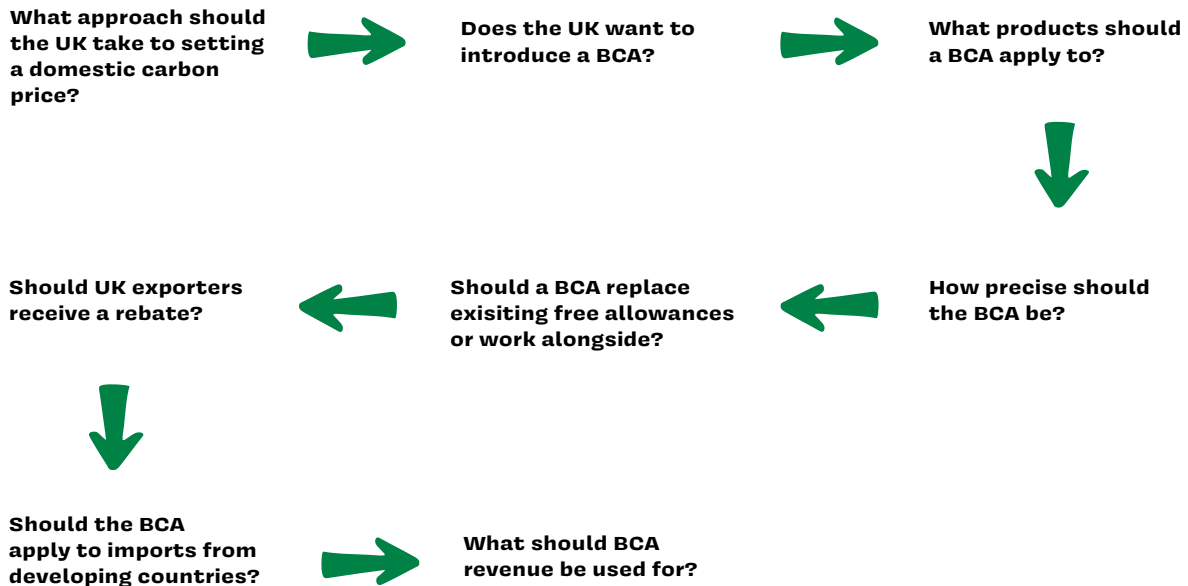
Detrimental to UK’s international relationships

The rules-based international trading system has suffered under the Trump Presidency and as a result of the Covid-19 crisis. Trade wars and the introduction of new trade barriers have become the new normal. In the UK’s case, its decision to leave the EU is viewed internationally (fairly or not) as a protectionist move, despite the Government’s efforts to paint a picture of an outward looking country. The introduction of a BCA could further contribute to this negative perception, and undermine the UK’s other efforts to liberalise trade, and strike new free trade agreements, particularly if it extended to agriculture.

At worst, it could lead to other countries retaliating and placing duties on UK exports. There would be a particular issue if the UK’s BCA was viewed by countries such as China and India as a deliberate attempt to single out their products, and stymie their development. However, we should not overstate the risk. If the UK is just one of many countries (including the US and EU) introducing a BCA, it is unlikely to be singled out. And if a BCA were introduced in the context of efforts to build a global consensus on minimum carbon pricing – as proposed by the Zero Carbon Commission – it could be portrayed as a tool of last resort, only applicable to those countries refusing to pull their weight.

Questions the UK Government will need to answer

If the UK does decide to introduce a BCA, there are a number of key questions it will need to consider and answer. These include but are not limited to:



What approach should the UK take to setting a domestic carbon price?

As discussed earlier in the piece, the nature of the domestic carbon price has a direct impact on the design of any UK BCA. From a practical and legal perspective, the simplest option would be **BCA 1**, a carbon tax levied on final consumption. But such an approach would require a fundamental overhaul of the existing UK approach to pricing carbon, which may prove unappealing to policy makers. Yet, **BCA 1** could be appropriate for sectors not yet covered by carbon pricing measures.

Of **BCA 2** (linked to an upstream producer carbon charge) and **BCA 3** (linked to an ETS), **BCA 2** is the easier to apply in practice, with the carbon charge being fixed for individual sectors. **BCA 3** is more complicated, due to the need to set the import carbon price against the changing price of ETS permits. Yet, given that the UK is set to introduce its own ETS, **BCA 3** is the most likely option.

However, beyond its BCA compatibility, there are many different reasons for choosing one approach to pricing domestic carbon over another, and the most appropriate measure might even vary by sector. For example, while an ETS might make sense for pricing industrial CO₂ emissions, it might make less sense for food products which might be more easily addressed via a consumption levy.

There is also the potential EU and US BCAs to consider. The UK will need to ensure its own domestic carbon price is as high, or higher, than the EU and US's in order to ensure its own exports to the EU and US do not fall foul of their respective BCAs. The recently signed EU-UK trade and co-operation agreement leaves open the possibility of the UK linking its own ETS to the EU's in the future. If this happens, the EU and UK ETS price would be the same, near enough ensuring that the UK is deemed equivalent by a future EU BCA, and exempt from additional carbon charges when entering the EU.

Does the UK really want to introduce a BCA?

Introducing a BCA would be legally and practically challenging, could damage the UK relations with other countries; and, seeing as there is little current evidence of carbon leakage, might not be necessary. There is also the potential opportunity cost: designing and implementing an effective BCA would consume a lot of political time and capital that could be better spent elsewhere. There are also other approaches to dealing with carbon leakage that should be considered: such as product standards, and expanding existing system of ETS free allowances.

However, the introduction of a BCA could create political cover for the UK Government as it pursues more ambitious climate measures in pursuit of net zero by 2050, and placate some of those who are concerned about a resultant reduction of UK competitiveness. Additionally, the international context should not be ignored: if the EU and US introduce a BCA the UK would likely end up following suit eventually.

What products should a UK BCA apply to?

A BCA should only be applied to products or sectors which are subject to a domestic carbon price. This means that, a BCA could not yet be applied to imported agricultural products, for example. The UK might also want to consider first applying the BCA narrowly to carbon-intensive, relatively simple products such as steel and cement. A phased approach would allow the UK to gradually build expertise and capacity, and provide a clear signal to trading partners as to the direction of travel allowing them to adjust (and potentially introduce their own domestic carbon pricing measures) accordingly.

How precise should the BCA be when setting the import carbon price?

Ideally, imported products would face a carbon levy precisely calibrated to the amount of CO₂ embedded within them. This would ensure exact equivalence with the domestic carbon price, and that high-carbon imported products are appropriately penalised – decreasing the likelihood of carbon leakage. However, there is trade-off between effectiveness and efficiency. Asking all importers to precisely certify the carbon-content of every product would place an undue - and costly - burden on companies. It might also not prove possible for many products. Furthermore, making assumptions about the carbon intensity of foreign production – in order to overcome the need for exact measurements – would open the UK's BCA up to further legal challenges.

Instead, the UK would likely need to create benchmarks for specific product types (e.g. steel, cement, ceramics, chemicals, etc.), based on the average carbon intensity (and therefore carbon cost) of producing the product domestically. The benchmark import carbon price would be applied as default, with importers only needing to demonstrate a product's true carbon cost if they believed it was in their financial interest to do so i.e. because it was produced more carbon efficiently than the benchmark.¹⁹

The downside of relying on benchmarks is that they can lessen the effectiveness of a BCA, with the benchmarked levy applied to some imports inevitably being lower than if the carbon content was estimated precisely. However, as the alternative is probably unworkable, at least for now, the question becomes whether an imperfect BCA is preferable to no BCA.

Should a BCA replace existing free allowances, or work alongside?

Under the existing ETS, certain companies receive an allocation of emission allowances for free in order to shield them from competitors outside of the EU. If the UK chooses to pursue **BCA 3** (linked to an ETS), it will need to decide whether to retain free allowances. Conceptually, it makes no sense to have both a BCA and free allowances, given they both exist achieve the same goal: prevent carbon leakage. However, there will be business pressure to keep free allowances, particularly from companies seeking double their protection (relief from the domestic carbon price and additional protection from foreign competitors).

If free allowances are retained, their impact on the effective domestic carbon price would need to be taken into account when setting the BCA's sectoral benchmarks, reducing its effectiveness. However, a compromise could see the free allowances fully phased out over time (for example a five-year period), rather than overnight.

Should UK exporters receive a rebate?

The UK would need to decide whether British companies should receive a rebate of carbon-price-related costs when exporting. While a rebate is built into the design of **BCA 1** (in that, like VAT, it only applies to products consumed within the UK), for **BCA 2** and **BCA 3** the question is not so straightforward.

¹⁹ The creation of product benchmarks could follow the approach utilised for Canada's federal 'Output-based Pricing System' (OBPS), whereby a production-weighted average emissions intensity is calculated as the total emissions of a given industrial activity (or grouping of facilities carrying out the same listed activity) divided by the total production of that sector (or activity).

A rebate would ensure that British exporters are not put at a disadvantage when competing in foreign low-carbon jurisdictions. However, there is legal uncertainty regarding whether a rebate can be justified.²⁰ Specifically, if the UK were relying on GATT Article XX (b and g) - the environmental exception - to justify its BCA, a rebate could undermine the UK's argument that the BCA is a climate change measure, rather than an economic one. The UK would also need to consider the political optics of a measure that gave its companies a free pass to sell carbon-intensive goods abroad.

Should a BCA apply to imports from developing countries?

The Paris Agreement includes the principle of “common but differentiated responsibilities.” In practice this means an acceptance that countries at lower levels of development should not have to shoulder the same burden of responsibility for addressing climate change as those that are already fully industrialised. In the context of introducing a BCA, the UK would need to decide whether it would apply to all imports from all countries, and if not what criteria it would use to differentiate between countries.

To this effect, the WTO agreements allow for developing countries to receive special and differential treatment. The UK makes use of these provisions to grant unilateral tariff and quota-free access to 46 least developed countries, as defined by the United Nations.²¹ It also applies a Generalised Scheme of Preferences, granting unilateral preferential access to the UK's market to lower developed countries such as India, Indonesia, the Philippines and Pakistan.²² The UK could, and should, use the same legal justification to at least exempt all least developed countries from its BCA.²³ A discussion would need to be had as to whether this exemption, or a reduction, should extend to lower developed countries as well.

What should BCA revenue be used for?

Increasing tax revenue should never be the primary objective of a BCA: its purpose is to increase the effectiveness of the UK's emissions reduction efforts, whilst an environmental justification is likely to be key to securing broader support for a BCA. Any money raised should be used to help businesses adapt – for example to fund the creation and continued support of third-party certification bodies able to provide an objective assessment of a product's CO₂ emissions. Ensuring that importers of low-carbon products are able to cheaply demonstrate that they should not be subject to a BCA levy is key if the BCA is to incentivise a broader shift from high to low-carbon production (if the importers get hit by the BCA levy no matter whether the product is actually low-carbon or not, due to the cost of certification being prohibitively high, then not only is the BCA unfairly penalising foreign products, it is also self-defeating from a climate perspective). Some revenue could also be assigned to assist developing countries in meeting their own climate objectives.

²⁰ National Board of Trade Sweden (2020). Border Carbon Adjustments: An analysis of trade-related aspects and the way forward. Available [here](#).

²¹ United Nations (2020). List of least developed countries. Available [here](#).

²² HM Government (2020). Guidance on trading with developing nations. Available [here](#).

²³ Whilst in theory this could lead to countries offshoring production to developing countries in order to avoid a BCA when importing those products to the UK, the situation is not so clear cut. If offshoring led to more development, the countries in which production is taking place would soon no longer qualify from exemptions because they would move out of either the broader categories (i.e. from least to lower developed countries), or product-specific categories (once export penetration exceeds a certain threshold the lower developed countries no longer receive preferential treatment for that product).

Alternatively, the additional revenue could be used to offset any additional rise in consumer prices, potentially through a VAT reduction (the aim of a carbon price, and BCA, is not to increase aggregate consumer prices, but instead to incentivise low-carbon production by making products with higher levels of embedded CO₂ relatively more expensive). But an overt emphasis on the BCA's revenue-raising ability could undermine its legal justification, under GATT Article XX (b and g). Some WTO members are already beginning to question the EU's proposed BCA on this basis, arguing that the EU's professed intention to use BCA revenues to help fund the COVID-19 recovery effort suggest that it is in fact a fiscal and protectionist measure, rather than one designed to address climate change.²⁴

Conclusion

With the EU, and potentially the US, looking to introduce border carbon measures in the coming years, the subject of BCAs will quickly rise up the international agenda. As such, the UK Government should begin to explore whether a BCA would be appropriate in the UK context, and if so, what it might look like. With the summer climate talks fast approaching, the UK also has an opportunity to take the lead in pushing BCAs up the international agenda, and create a multi-country platform for greater co-operation and co-ordination, so as to ensure the various emerging BCA approaches are compatible.

This paper lists some of the questions that would need to be considered, and provides some possible answers. However, there are many other issues that would need to be addressed, including how a UK BCA would operate in respect of Northern Ireland, taking into account the Withdrawal Agreement's Northern Ireland protocol. Yet, if multilateral action on climate change fails to progress, a BCA could play a vital role in ensuring the effectiveness of UK measures to reduce carbon emissions, and providing political cover for ambitious unilateral emissions reduction measures.

Sam Lowe, January 2021

²⁴ World Trade Organisation (2020). Brexit, EU's Carbon Border Adjustment takes centre stage at Market Access Committee. Available [here](#).