

Getting serious about the European Green Deal with a Carbon Border Tax

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Extended Abstract

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In December 2019 the incoming European Commission announced the European Green Deal (EGD) which aims at making the EU a climate neutral, circular economy. One of the most promising elements in the EGD is the introduction of a carbon border adjustment (CBA) mechanism (European Commission, 2019, p. 5). The CBA should be seen as a supplementary measure to the European Emissions Trading System (ETS), the EU's internal EU carbon pricing system, introduced in 2005. The European ETS in turn was implemented to reduce CO₂ and other greenhouse gas emissions and should help achieving the emission reduction target the EU committed to under the Paris Agreement – i.e. reducing greenhouse gas emissions by 40% until 2030 (compared to 1990). This target is envisaged to be raised to 50-50% as part of the EGD.

In economic terms, the European ETS is an instrument to correct for a so-called 'negative external effect' which is an important market failure, i.e. a phenomenon that prevents market from delivering socially-desirable outcomes. In fact, for economists environmental degradation and man-made climate change are primarily the result of negative external effects (e.g. Weitzman, 2014). In this vein, Sir Nicolas Stern, in his Royal Economic Society Lecture in 2007, referred to climate change as the result of "the greatest market failure that the world has seen". A negative external effect arises when producers do not have to pay for the full costs that their production activities impose on society. Air pollution and its negative consequences for the environment and human health are a prime example of such a negative externality (on the production side). In the absence of any efficient carbon pricing, firms will produce more than is socially desirable because they do not take into account the damage that their production-related emissions impose on society.

Recognising the global dimension of the issue, the ideal solution would be to set a price for CO₂ and other greenhouse gas emission at the world level. Since a global carbon pricing system is unlikely to be agreed upon any time soon, the EU has resorted to unilateral action, i.e. to implement the European ETS. The ETS is a 'cap-and-trade' system which does not impose a tax on emissions, i.e. it does not set a price on emissions directly. Rather firms require the permission to emit CO₂. This permission is obtained by acquiring emission certificates, so-called 'allowances'. A pre-defined amount of these allowances (which is reduced over time) is issued each year. And while there is a maximum amount of CO₂ to be emitted (within the sectors covered by the EU ETS) – i.e. a 'cap' – firms are free to buy (sell) allowances if they are unable to reduce emissions (do not require allowances previously obtained). This is why the EU ETS is a so-called cap-and-trade system. The advantage of such a system is that the regulator does not need to set a price for CO₂ emissions. Rather the price is determined by demand and supply within a market mechanism which reduces the risk of distortions due to 'inadequate' prices.

Any EU-internal carbon pricing mechanism supports the EU's environmental objectives as it makes production in carbon-intensive industries more expensive, thereby causing these industries to contract.

While the EU's internal carbon pricing mechanism is able to address the market failure within the European Single Market, it creates another distortion in trade with third countries – at least with those that do not have a comparable carbon tax in place. The fact that EU producers have to bear the cost of the EU-internal carbon pricing while foreign producers remain unaffected may result in a loss of international competitiveness of EU producers. This phenomenon, also known as 'carbon leakage', is a situation where production is shifted outside the EU even if the EU industry could produce at lower costs. This has raised serious concerns in Member States

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and the risk of carbon leakage is explicitly mentioned in the EGD and also in the EU's revised industrial policy strategy (European Commission, 2020).

This is where the so-called carbon border adjustment (CBA) mechanism comes into play. A CBA potentially comprises two elements: (i) a carbon border tax, which is a tax on imports, i.e. an import tariff and (ii) a rebate of the carbon costs borne by EU producers for their exports. Ruling out the second component (for it would undo much of the environmental progress to be achieved by an EU carbon pricing system), this paper analyses the implication of a European CBT in combination with a domestic carbon tax. In the analysis ecological and economic effects of a unilaterally imposed European CBT are studied, along with possible implications for the EU budget. Moreover, some legal aspects regarding the WTO compatibility of a CBT and the implications for the EU's (free) trade policy are discussed.

Our analysis suggests that the introduction of a European CBT offers the triple advantage of **(i) supporting the ecological transformation; (ii) reducing carbon leakage** and **(iii) providing new funds for the EU budget** that are independent of member states' direct contributions. These findings lead to the following conclusions:

- A CBT is a necessary supplement to the EU's internal carbon pricing mechanism in order to avoid inefficient and economically harmful EU imports in energy-intensive industries. Still, it remains a 'second-best' solution to remedy a global market failure.
- A CBT levied on imports is an effective tool to support the environmental objectives laid down in the EGD deal and to fight carbon leakage. In contrast, the idea of rebates of the carbon-related costs for EU exporters should be dropped as it runs counter the necessary shakeout of emission-intensive industries.
- A *domestic carbon pricing cum CBT system* could be part of broader green industrial policy mission. Such a 'green mission' (see also Mazzucato, 2018) should be to make the EU carbon-independent, defined as zero imports of petroleum, natural gas and coal (see Stöllinger and Landesmann, 2020).
- A European CBT must be carefully designed in order to ensure WTO-compatibility. The latter could be achieved by designing the EU CBT as a charge equivalent to an internal tax (Krenek, 2020). Such a charge should be permissible under WTO rules, provided it does not exceed the domestic tax so as not to discriminate against imports. Moreover, a transparent, WTO-consistent CBT requires a stable benchmark in order to evaluate the non-discriminatory nature of the CBT which in turn calls for turning the current EU ETS, a cap-and-trade system, into a carbon tax.
- WTO compatibility notwithstanding, the introduction of a CBT by the EU is bound to lead to further tensions in the global trading system as major trading partners without a national carbon tax will perceive the EU CBT as a protectionist measure.
- The CBT also lays open the policy inconsistency between the objectives of the EGD and the EU's (bilateral) trade policy which aims at concluding deep and comprehensive free trade agreements (FTAs) with fast-growing economies. To resolve this inconsistency, the EU should refrain from concluding FTAs with countries that do not have a domestic carbon pricing system and revise (or suspend) existing FTAs.
- The CBT could be a lucrative new source of funds for the EU budget. Based on estimates for France, an approximation for the revenues generated by the CBT for the EU as a whole could be in the order of 20% of the EU budget. Moreover, the CBT could substantially strengthen the EU's true own-resources which would make the EU less dependent on national contributions by member states.

References

- European Commission (2019), The European Green Deal, Communication by the Commission, COM(2019)640 final, 11 December, Brussels.
- European Commission (2020), A New Industrial Strategy for Europe, Communication by the Commission, COM(2020)102 final, 10 March, Brussels.
- Krenek, A. (2020), How to implement a WTO-compatible full border carbon adjustment as an important part of the European Green Deal, ÖGfE Policy Brief, 02/2020, January. Vienna.
- Mazzucato, Mariana (2018), Mission-Oriented Research and Innovation in the European Union: A Problem-solving Approach to Fuel Innovation-led Growth. Luxembourg: Publications Office of the European Union. Available at: https://ec.europa.eu/info/sites/info/files/mazzucato_report_2018.pdf.
- Stöllinger, R. and Landesmann, M. (2020), The European Green Deal – good intentions that won't go far, wiiw News & Opinions, 3 February. Available at: <https://wiiw.ac.at/the-european-green-deal--good-intentions-that-won-t-go-far-n-423.html>.
- Weitzman, M.L. (2014), Can Negotiating a Uniform Carbon Price Help to Internalize the Global Warming Externality?, Journal of the Association of Environmental and Resource Economists, 1(1/2), pp. 29-49.