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A European Union Carbon Border Adjustment Mechanism: Implications for developing countries



2021, United Nations Conference on Trade and Development.

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Abstract

As part of a plan to decarbonize its economy by 2050, the European Union is considering the introduction of a carbon border adjustment mechanism (CBAM), to reduce the risk of carbon leakage and to level the field for European industries working towards decarbonization of their production processes.

Using a general equilibrium model, this study looks at the potential effects of a CBAM on international trade, carbon dioxide (CO₂) emissions, income and employment, with a special focus on developing and vulnerable countries. The study confirms that the introduction of carbon pricing coupled with a CBAM helps reduce CO₂ emissions, inside and outside the European Union. International trade patterns change in favour of countries where production is relatively carbon efficient.

However, the reduction represents only a small percentage of global CO₂ emissions.

The introduction of a CBAM results in declines in exports in developing countries in favour of developed countries, which tend to have less carbon intensive production processes.

Potentially, the European Union could consider CBAM flanking policies, including the use of revenue generated by the CBAM, to accelerate the diffusion and uptake of cleaner production technologies to developing country producers.

This could be beneficial both in terms of greening the economy and fostering a more inclusive trading system.



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Table of Contents



6

Introduction

8

The European Union Carbon Border Adjustment Mechanism

8

Main features of the CBAM

11

Potential effects of a CBAM: a literature overview

11

Effects on reducing leakage

11

Effects on international trade

13

The model

13

Modelling Carbon Border Adjustment Mechanism in GTAP

16

Scenarios

17

Model results

17

CO₂ emissions effects

19

International trade effects

21

Income effects

22

Employment effects

23

Implications and Conclusions

25 References 27 Annex



Introduction

As countries continue to battle the COVID-19 pandemic and attempt to recover from the hard economic crisis it has induced, the world continues its efforts to fight another looming threat on our development possibilities and on humanity as a whole: climate change. Indeed, climate and environmental considerations are now at the forefront of policy concerns and have become omnipresent in public policy, and trade is no exception.

Parties to the UNFCCC agreed in 2015 to combat climate change and to accelerate and intensify the actions needed for a sustainable low carbon future. One such action is the reduction of carbon dioxide (CO₂) emissions, one of the main greenhouse gases (GHG) causing global warming. The challenge is not minor. CO₂ emissions have persistently followed an upward trend for decades, which was only briefly interrupted in 2020 due to pandemic-related economic shutdowns. Carbon emissions saw another record high in early 2021.

CO₂ yearly emissions have more than quadrupled since the establishment of General Agreement on Tariffs and Trade (GATT) in 1947. Since the creation of the World Trade Organization in 1995, these emissions have increased by 50 per cent. When the institutions that underpin our multilateral trading system were created, the climate and environmental challenges were not the emergencies they are today. Whilst it is not surprising that GATT rules were not drafted in support of climate considerations, there is now an absolute imperative to update and adapt the trade policy toolkit to meet these challenges.

Climate change is a global problem which, if tackled, would truly need an international effort. However, whilst there is strong common interest in tackling climate change, there are large incentives for nations to minimize mitigation efforts and free ride on the efforts of others. In addition, the efforts required to tackle climate change need to be reconciled with climate fairness, e.g, the fact that countries have contributed differently to the accumulation of CO₂ emissions and that those countries most likely to be affected by climate change would be those least responsible for it. Free riding and climate fairness are the two main issues behind the difficulties in reaching meaningful international agreements on reducing emissions.

Trade is one policy area that is increasingly considered as an avenue for limiting the free rider problem. This paper looks at the proposal of the European Union to implement a carbon border adjustment mechanism (CBAM). In short, the CBAM compensates for differences in carbon prices between domestic and imported products.

In 2019, the European Union launched its Green Deal—a plan to decarbonize its economy by 2050. As part of this plan, the European Union is introducing a CBAM to reduce the risk of carbon leakage^{1,2} and to level the field for European industries that have been working towards decarbonization of the economy. The stated goal of the CBAM is to avoid the European Union’s efforts to reduce GHG emissions being weakened by a lack of climate action of non-European Union countries with less ambitious policies and regulations in this area. Indeed, the emissions embedded in the goods and services imported to the European Union have been rising and currently represent 20 per cent of the European Union’s domestic CO₂ emissions (European Parliament, 2021a). The details of the CBAM proposal will be presented by the European Commission in July 2021³ the mechanism is expected to begin operation in 2023 (European Parliament, 2021b).

Several trade partners of the European Union, particularly developing countries, have already raised concerns on the potential impact of the CBAM on their exports and competitiveness.⁴ The CBAM raises discussions as two issues that will be inevitably intertwined: addressing carbon leakage and the effect on firm competitiveness, inside and outside the European Union. Some developing countries, especially Least Developed Countries (LDCs), will need support to incorporate green technologies in their production processes and reduce related CO₂ emissions (IISD, 2021; United Nations, 2021). Further, there have been calls to support a smooth transition to help countries to adapt to the effects of the European Union’s climate change mitigation policies.⁵

This report looks at the potential effects of the CBAM on CO₂ emissions, trade, income and employment in the European Union and its main trading partners, particularly developing countries. The study also looks at the potential effects of exempting vulnerable nations, such as LDCs and Small Island Developing States (SIDS) from the CBAM.

The report is structured as follows. Section 2 describes the main characteristics of the CBAM based on available public information, including the sectors considered for its application, and its expected implications for trade and emissions based on recent literature. Section 3 presents a literature review. Section 4 describes the Global Trade Analysis Project (GTAP) computable general equilibrium model used for the assessment, the main assumptions of the modelling exercise, and the different scenarios analysed. Section 5 presents the main findings of the analyses and discusses the key implications for the European Union and its trading partners, with a focus on developing countries. Section 6 concludes and offers alternative policies and approaches to support developing countries in the uptake of cleaner production technologies. This could be beneficial both in terms of greening the economy and fostering a more inclusive trading system.

1 European Parliament resolution of 10 March 2021 “supports the introduction of a CBAM, provided that it is compatible with WTO rules and European Union free trade agreements by not being discriminatory or constituting a disguised restriction on international trade” (European Parliament, 2021a).

2 Carbon leakage refers to the relocation of production to other countries with laxer emissions constraints for costs reasons related to climate policies, which could lead to an increase in their total emissions. See https://ec.europa.eu/clima/policies/ets/allowances/leakage_en (accessed on 9 July 2021).

3 During the presentation of the European Union’s “Fit for 55”, the legislative package on climate and energy that reflects the European Union’s ambitions to reduce carbon emissions.

4 For instance, in a statement from the 30th BASIC (Brazil, South Africa, India and China) Ministerial Meeting on Climate Change held on 8 April 2021, ministers expressed “grave concern regarding the proposal for introducing trade barriers, such as unilateral carbon border adjustment, that are discriminatory and against the principles of Equity and principles of Equity and CBDR-RC [Common but Differentiated Responsibilities and Respective Capabilities]” (South African Government, 2021).

5 See for instance United Nations (2021) on the need for a smooth transition for graduating LDCs.

HIGH
EMISSIONS

LOW
EMISSIONS

CO₂

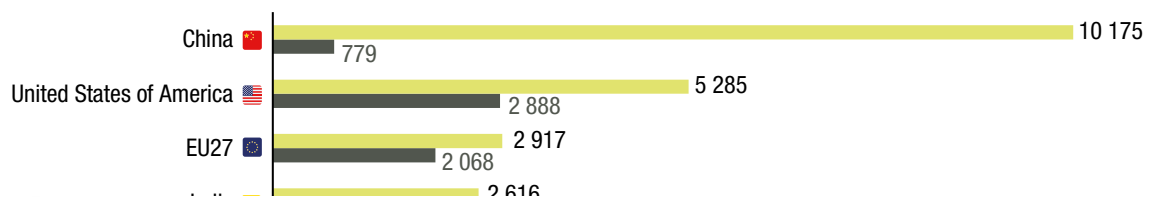
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The European Union Carbon Border Adjustment Mechanism

Main features of the CBAM

On 10 March 2021, the European Parliament adopted a resolution titled: “A WTO-compatible EU carbon border adjustment mechanism”.⁶ This resolution supports the introduction of a CBAM compatible with WTO rules and European Union’s free trade agreements by not being discriminatory or constituting a disguised restriction on international trade (European Parliament, 2021b). The resolution specifically links the CBAM to the European Union Emissions Trading System (ETS). It underlines that the European Union’s ambition on climate change should not lead to carbon leakage, as there would be no resulting global benefit of reduced carbon emissions if the production in the European Union is simply moved to countries outside the European Union that have less ambitious emission reduction targets (European Parliament, 2021b). Currently, considering territorial CO₂ emissions from fossil fuels, the European Union is the third largest emitter of CO₂, after China and the United States (See Figure 1).

Figure 1 | Yearly emissions in million Mt CO₂, 1960 and 2019, top ten global emitters in 2019.



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