

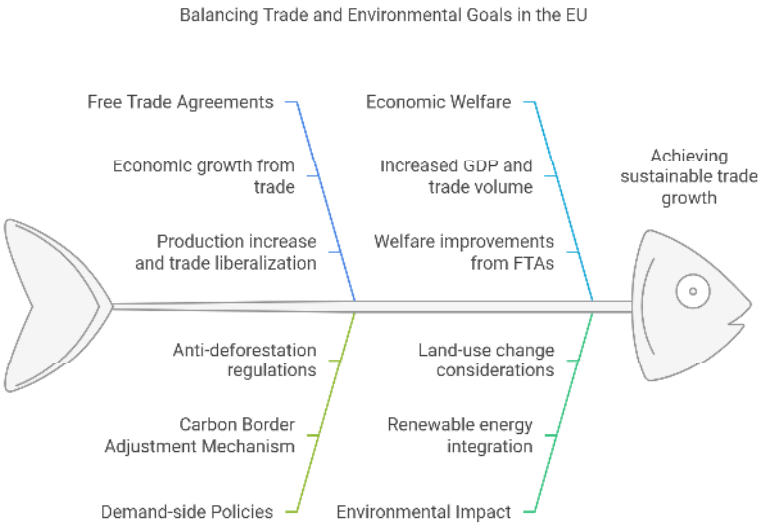
The Environmental and Economic Impacts of EU Trade Agreements and Unilateral EU Regulations

Abstract

This study uses an advanced global economic model to explore the environmental and economic effects of the European Union's (EU) Free Trade Agreements (FTAs). The model integrates a detailed representation of the energy sector, including renewable energy sources, and accounts for land-use changes, making it particularly suitable for assessing the impacts of trade and environmental policies on sustainability.

The analysis spans the implementation of key EU FTAs over the past two decades, starting with the EU-South Korea agreement in 2011 and covering others such as agreements with Canada (CETA), Japan, Vietnam, and the Andean Community. The cumulative effects of all these agreements are analyzed rather than examined individually. In the first step, we compare a scenario without FTAs to one where all these agreements are implemented. This helps isolate the overall impact on economic welfare, which is expected to rise due to increased trade and production.

In the second step, the study considers the role of unilateral EU demand-side policies, including the Carbon Border Adjustment Mechanism (CBAM), mirror clauses, and anti-deforestation regulations. These policies, which are applied universally (*erga omnes*), aim to mitigate the environmental impacts of global production and incentivize sustainable practices across borders.



The combination of FTAs and demand-side policies may, in theory, result in a Pareto-efficient outcome. In this case, FTAs could enhance economic growth while the policies improve

environmental performance without major trade-offs. However, the interaction between these goals is complex, and this study is designed to assess whether such alignment is achievable quantitatively.

This research integrates trade liberalization with environmental policies, shedding light on how economic and sustainability objectives can coexist. It offers valuable insights into how the EU can design future strategies to balance global trade and environmental responsibility over the long term.