

# Harmonizing Carbon Pricing: Current Challenges and Prospects in the European Union

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## Abstract

*This paper investigates the diverse range of carbon pricing mechanisms within the European Union, examining their development, implementation, and effectiveness in achieving climate neutrality goals. The mechanisms are grouped into the leading pillars within the broader context of the EU's Green Deal: various carbon taxes, emission trading systems (ETS), and the carbon border adjustment mechanism (CBAM), and their roles are assessed. It concludes that there is significant variability in the adoption and impact of these mechanisms across EU member states, which complicates the regulatory landscape and potentially undermines collective climate action goals.*

*Additionally, while market-based mechanisms are a reasonable economic choice, they often fall short in practice due to problems such as over-allocation of allowances and ineffective price signals in the ETS. The CBAM introduces an innovative approach to mitigating carbon leakage and ensuring fair competition. However, these concerns are unfounded as the potential to instigate trade tensions and its global implications are negligible. Therefore, the CBAM is a highly effective solution to combat carbon leakage and promote fair competition. The optimal carbon pricing strategies have already been explored and integrated with other climate policies. The socio-economic impacts of carbon pricing, particularly on vulnerable populations, have been thoroughly analyzed and addressed.*

*This study provides valuable insights into effective carbon pricing strategies within the EU. The findings will inform future policy adjustments and research directions to enhance the efficacy and equity of climate action.*

**Keywords:** carbon pricing, emission, European Union, carbon taxes, emission trading system, ETS, CBAM

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