

Industrial decarbonization in a fragmented world: Carbon pricing with border adjustments using standardized values

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Abstract-

The European Carbon Border Adjustment Mechanism (CBAM) has the dual objective of preventing carbon leakage and encouraging adoption of low-carbon technologies abroad. Yet, pursuing both objectives with the same mechanism results in incomplete carbon leakage protection unless global carbon prices converge. As the current geopolitical situation makes rapid convergence seem unlikely, an extension of free allowance allocation is being discussed for affected sectors. This would, however, mute most carbon pricing incentives and reduce carbon pricing revenues. This paper argues that until progress on global carbon pricing is reached, the CBAM should be reformed to use standardized values rather than production-specific emission intensities for materials with complex value chains. With the reform, emission trading with free allowances at benchmark level continues to provide the carbon price and incentives for conventional producers. To close the carbon pricing gap, a standardized liability per ton of material is included, independent of production process or location. It can be subject to established border adjustments along the full value chain, including export relief. Such a reform would not create direct incentives for climate-friendly material production and carbon pricing in third countries but would ensure carbon pricing incentives along the domestic value chain and carbon pricing revenue to fund climate action. This would enhance investment stability, support industrial transformation, and address carbon leakage risks in a fragmented global policy landscape.

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