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Economic Perspectives on Societal Challenges: Equality of Opportunity, Market Regulation, and Financial Stability - EPoS

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PRESS RELEASE

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Study: EU CO2 Pricing Led to Drop in Premature Deaths in Europe

- EU ETS lowered fine particle air pollution from power plants
- Study by the EPoS Economic Research Center covers 13 European countries, 2016 to 2021

Bonn, Mannheim, 27. November, 2026 - **The UN climate talks in Turkey exposed deep divisions over the role of fossil fuels in tackling climate change. The European Union urges transitioning away from fossil fuels, its main tool being the Emissions Trading System (EU ETS). New economic research highlights the effectiveness of the ETS in the electricity sector in protecting both the climate and public health. Between 2016 and 2021, carbon trading among power plants lowered CO2 emissions by 5.7 percent. It also reduced premature deaths related to air pollution by 8.9 percent compared to the level that would have occurred without a carbon price. The EPoS Economic Research Center at the Universities of Bonn and Mannheim publishes the findings in the discussion paper "Electricity Generation, Carbon Pricing, and Air Quality: Evidence from the EU ETS".**

"Our findings show that carbon pricing in Europe's electricity sector substantially reduces greenhouse gas and air pollutant emissions from power plants. This helps to protect the climate and public health," says Ulrich Wagner from the EPoS Economic Research Center. "Given that power plants in Europe were already subject to strict air pollution regulations before the ETS was introduced, we were surprised by how strongly the policy reduced mortality related to fine particles (PM2.5) in Europe."

Health benefits exceed costs

The researchers' cost-benefit analysis revealed that the health benefits per ton of CO2 abated were six times greater than the costs. They examined data from 13 European countries covering the period between 2016 and 2021. During this time, the EU ETS reduced CO2 emissions from fossil fuel power generation by 5.7 percent. These improvements were largely driven by a shift from coal to cleaner natural gas for electricity generation. At the same time, premature deaths related to air pollution decreased by 8.9 percent compared to the level that would have occurred without a carbon price.

EU ETS delivered tangible benefits

"While the climate benefits of this policy might be elusive and accrue mostly elsewhere on the planet, air quality improvements have beneficial effects in Europe itself and directly improve the health of its citizens," says Nico Kasparetz from the EPoS Economic Research Center.

The analysis showed that the health benefits outweighed additional electricity generation costs by more than 5 billion Euros. "This result is obtained even before accounting for the global benefits of climate protection," the researcher explains.

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In Europe, concerns about the economic costs of carbon pricing have grown in recent years, as emissions trading is scheduled to expand to additional sectors. “Our findings suggest that such concerns should be weighed against the full range of benefits produced by the ETS. According to our results, carbon pricing can be a powerful policy tool that not only tackles climate change, but also saves lives and delivers substantial health and economic benefits,” says Ulrich Wagner.

The presented discussion paper is a publication without peer review of the Collaborative Research Center Transregio 224 EPoS. Access the full discussion paper here:
https://www.crctr224.de/research/discussion-papers/archive/dp806

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The Collaborative Research Center (CRC) Transregio 224 EPoS
Established in 2018, the Collaborative Research Center Transregio 224 EPoS, a cooperation of the universities Bonn and Mannheim, is a long-term research institution funded by the German Research Foundation (Deutsche Forschungsgemeinschaft, DFG). EPoS addresses three key societal challenges: how to promote equality of opportunity; how to regulate markets in light of the internationalization and digitalization of economic activity; and how to safeguard the stability of the financial system.

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