EPoS
Collaborative Research Center Transregio 224

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

UNIVERSITÄT BONN

UNIVERSITÄT MANNHEIM

PRESS RELEASE

30. May 2024

EU Climate Policy: French Manufacturers Cut Emissions By 43 Million Tonnes

- **EU Emissions Trading System (ETS) has proved effective**
- **Economists analyze data of 252 ETS-regulated industrial companies**

Bonn, Mannheim, 30.05.2024 – **In France, pricing carbon dioxide has proved to be an effective tool for reducing producers' emissions: According to a new study, the manufacturing sector cut this harmful greenhouse gas by an estimated 15 percent during the first eight years of the EU Emissions Trading System (2005-2012, estimated 5.4 m tonnes per year). In total, this exceeds the CO2 emissions that Sweden emits in one year (38 m tonnes). Output was unaffected by the costs of complying with this policy. These results are obtained in a study by the EPoS Economic Research Center at the Universities of Bonn and Mannheim, forthcoming in the Review of Economic Studies under the title "Does Pricing Carbon Mitigate Climate Change? Firm-Level Evidence from the European Union Emissions Trading Scheme".**

"The introduction of the Emissions Trading System has produced some notable results in French manufacturing industries," says Ulrich Wagner from the EPoS Economic Research Center. "Importantly, the reductions in CO2 emissions did not come at the expense of either weaker performance or outsourcing to bypass European climate regulation."

Cleaner technologies lowered energy bills

To economists, it is surprising that output was unaffected, as carbon pricing increases manufacturing costs and could translate into reduced economic activity. Yet, the researchers find that French companies invested in energy-saving production technologies. This lowered energy bills and helped them to offset compliance costs such as buying emissions permits or undertaking costly emissions abatement.

Unfounded critiques of the EU Emissions Trading System (ETS)

The Emissions Trading System is the EU's key tool for reducing greenhouse gas emissions of energy companies, manufacturers and aircraft operators. It covers around 10,000 installations or about 40 percent of the EU's emissions. Critics have portrayed this market-based regulation as both environmentally ineffective and economically devastating. "We use company data with an unprecedented amount of detail and show that such claims are unfounded," says Wagner. "The reduction of harmful emissions in the first eight years of the ETS had no detrimental impact on employment or value added."

The ETS is the world's first and biggest major carbon market and operates as a "cap and trade" system. A cap is set on the total amount of certain greenhouse gases that can be emitted. Companies receive or buy emission allowances which they can trade with one another.

PRESS RELEASE

The ETS as the driver of technological change

"We present causal evidence that shows environmental effectiveness of a cap-and-trade system in the industrial sector," says Wagner. "Despite widespread concerns about the economic costs of climate protection measures, the ETS did not come at the price of output reductions across the board. Instead, many companies invested in new technology which lowered energy consumption and the carbon intensity of production. Therefore, pricing emissions is apparently a good way to make companies aware of potential cost savings and efficiency gains through green technologies."

The study is forthcoming in the peer-reviewed international journal Review of Economic Studies. Online access to the full study is through this link: http://www.restud.com/does-pricing-carbon-mitigate-climate-change-firm-level-evidence-from-the-european-union-emissions-trading-system/

Find the list of all discussion papers of the CRC here: https://www.crctr224.de/research/discussion-papers.

Authors

Jonathan Colmer, Assistant Professor, Department of Economics, University of Virginia
Ralf Martin, Professor of Economics, Imperial College London
Mirabelle Muûls, Associate Professor of Economics, Imperial College London
Ulrich J. Wagner, Professor of Economics, University of Mannheim and member of EPoS Economic Research Center

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.

Press Contact

econNEWSnetwork
Sonja Heer
Tel. + 49 (0) 40 82244284
Sonja.Heer@econ-news.de

Contact

Prof. Ulrich J. Wagner
Department of Economics
University of Mannheim
ulrich.wagner@uni-mannheim.de