

# Should the EU ETS be extended to road transport and heating fuels?

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## 1. Motivations underlying the research

To achieve net zero emissions of greenhouse gases by 2050, the European Commission (EC) set out a revised emissions reduction target for 2030 of 55% compared to 1990 levels (EU, 2021). Achieving this target will require at least a quadrupling of the annual rate of GHG emissions reduction achieved by the EU over the period 1990–2018. This, in turn, calls for a strengthening of existing European Union (EU) and national climate policy instruments.

Given the magnitude of the implications implied by the emissions reduction objective, it is essential to design climate policies that (i) offer a credible and binding commitment to achieving the climate target, (ii) achieve it at least cost for society and (iii) adequately address their distributional consequences.

Against this backdrop, we analyse the proposed extension of the EU Emissions Trading System (ETS) to road transport and heating fuels. The objective of this paper is twofold. First, to highlight the value of an extension of the EU ETS to road transport and heating fuels with regard to the (credibility of) the achievement of the EU's emissions reduction target and the overall policy cost. Second, to shed light on the distributional implications that such a policy change might have, alongside their political economy implications and potential mechanisms to alleviate them.

This review is motivated by three observations. First, there is currently no pan-European policy instrument able to ensure that the aggregate, EU-wide, target will be met. This undermines the credibility of the EU target, especially in light of the coordination challenge that aligning individual Member States' policies targeting road transport and heating fuels with the EU target might represent. Second, the existing policy-mix induces inefficiencies raising the overall policy cost. At the EU level, inefficiencies arise mainly from (i) poorly targeted policies, (ii) lack of harmonization of incentives across countries and sectors, (iii) exclusive reliance on standards-based policies in some sectors. Third, the distributional consequences of the policies (price or non-price) implemented to achieve the EU climate objectives will be commensurate with the stringency of the objectives themselves. Existing mechanisms of redistribution between and within EU member states may not be sufficient to adequately address the consequences of raised EU-wide emissions reduction objectives.

## 2. A short account of the research performed

We provide a review of *how* an extension of the EU ETS would enhance EU climate policy credibility, as well as its cost-effectiveness. With regard to credibility, we highlight that the EU ETS could (i) help deliver additional (and potentially less costly) emission reductions needed to meet the EU's 1.5–2°C compatible carbon budget and not currently mandated by any of the existing policies, and (ii) deliver emissions reduction *instead* of these policies, should any of these fail to deliver their intended emissions reduction. We then discuss several ways in which an extension of the EU ETS to road transport and heating fuels could enhance the efficiency of the EU climate policy mix.

We also address the distributional implications of such an extension by between and within EU countries. To discuss the within country impacts, we follow a general equilibrium framework and analyze use-side and sources-side incidence of the extension. Finally, we provide recommendations as to how to manage the extension and address its distributional impacts.

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### 3. Main conclusions and policy implications of the work

An extension of the EU ETS could be an effective intertemporal commitment device that sets a long-term signal shaping market participants' expectation about the stringency and credibility of EU climate policy. It represents, perhaps uniquely, a policy which could ensure delivery of the EU's overall carbon budget over the set time horizon. Together with the standard efficiency properties of emissions trading, such an extension could also deliver substantial cost savings.

Yet, successfully implementing an EU ETS extension raises significant distributional challenges that must be addressed by design. Thus, the extension must be done in a way that is consistent with Europe's climate goals, does not undermine its existing standards-based policies *and* adequately mitigates potentially severe distributional effects. A proposed extension which does not take due account of each of these elements will either face strong opposition to its implementation in the first place or be implemented with a less stringent than necessary carbon budget.