

Committee of Public Accounts  
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Opening remarks from ESRI Energy and Environment researcher:  
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## **Introduction**

Firstly, I would like to thank the Committee for this opportunity to present our research. My name is Dr. Aykut Mert Yakut and, I am a Research Officer working in the energy and environment modelling group at the ESRI. With my colleagues, we are working on analysing the economic and environmental impacts of climate change policies. In October 2019, we published a report entitled '[The Economic and Distributional Impacts of an Increased Carbon Tax with Different Revenue Recycling Schemes](#)' and the Committee has invited me to discuss our results presented in this report.

The report examines the distributional aspects of an increase in the carbon tax under different revenue recycling schemes. A revenue recycling scheme is a policy option that is designed to eliminate, or lessen at least, the negative consequences of an increase in a tax by using the revenue raised. In the Climate Action Plan, it has been proposed that the level of the carbon tax should reach €80 per tonne of CO<sub>2</sub> emissions in 2030. In a trajectory of incrementally increasing carbon tax, the report compares ten different revenue recycling schemes.

## **Findings**

The results indicate that total emissions will continue to grow over time due to economic growth and the increase in population. The suggested increase in the carbon tax will be helpful Ireland in reducing its emissions, but it will not be sufficient on its own to meet the country's legally-binding non-ETS emissions in 2030.

The strong economic growth profile of the Irish economy will be marginally affected. In the case of no recycling the carbon tax revenues, the annual average growth rate of the real gross domestic product will drop from 3.3 per cent to 3.288 per cent. In this case, on the other hand, household income and public fiscal balances deteriorate at most across the considered revenue recycling schemes.

Using carbon tax revenues to reduce other taxes (sales, wage or corporate tax) can reduce the macroeconomic impacts of a carbon tax increase and lead to increases in household income, but often results in disproportional effects on poorer households. In other words, an increase in the carbon tax has regressive impacts. Recycling carbon tax revenues back to households in the form of transfers, however, can significantly reduce the regressiveness of the impacts at the expense of poorer macroeconomic performance.

Rural households face higher and regressive increases in consumption prices than urban households. In urban areas, however, middle-income households face the highest price impacts.

Carbon-intensive production sectors, such as transport and mining will be hit the hardest by a carbon tax increase. In contrast, low carbon-intensive sectors, such as the accommodation sector, can benefit from a carbon tax increase.