Decarbonising the Economy: Impact and Role of Trade*

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Abstract

Climate change is an urgent matter and international trade has a role to play in bending the climate change curve. The goal of this paper is threefold: i) implement three main decarbonisation scenarios in a Computable General Equlibrium (CGE) model; ii) analyse their impact on carbon dyoxide (CO2) emissions, GDP and trade patterns; iii) investigate the role of trade in decarbonisation. To do so, we use an extended version of the WTO Global Trade Model and implement three different scenarios which are (i) Global Inaction (GI) where countries continue their current mitigation policies but do not take further action to comply with their Nationally Determined Contributions (NDCs) commitments; (ii) Divided World (DW) where countries take action in line with their NDCs commitments until 2030 through unilateral

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policies and (iii) Cooperation towards Net Zero (NZE) where countries cooperate to achieve almost net zero emissions by 2050. Findings show that in the CNZ scenario low income regions, low-middle income regions and high-middle income regions experience losses in GDP, while high-income regions are the group that experiences a marginal increase in GDP. Also, compared to the 2022 levels, under the CNZ scenario, exportability falls at the global level due to increased levels of electrification through renewables, which are typically less tradable than fossil fuels.

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