

Supply-side responses to the transition to sustainable diets and implications of trade policy regimes: the case of the EU¹

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Abstract

In responding to heightened attention to climate change, various governments have indicated willingness to consider both demand and supply measures to reduce emissions from the food system, as for example shown in the European Green Deal proposal by the European Commission in 2019. In this paper, we model and analyze two scenarios of agricultural system transitions as responses to a healthy and more sustainable diet for the consumers in the EU, UK and Switzerland (EU27+2). For this purpose, we harness the insights from the European Calculator² project and other literature, using a CGE modeling framework specifically designed to allow for "flexibilities" in modeling large behavior changes on the demand side and major changes in production technologies. The obtained modeling results will shed light on the expected adjustments to agricultural production patterns in the EU27+2 and the implied contribution to the EU's climate goals as well as to the global mitigation efforts. Owing to the expected shrinking size of the EU in the global economy and to test the sensitivity of the above results with respect to trade policy regimes, we further conduct the above analysis in alternative trade policy regimes. This allows us to investigate the effectiveness of the proposed supply measures, responding to demand changes, in contributing to reaching global climate targets, as opposed to the EU targets only. These findings are expected to contribute to the debates on the interactions of demand and supply measures in the food and agriculture system and possibly also to highlight the roles of trade policy regimes in these interactions.

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² <http://www.european-calculator.eu/>