Modelling the impact of Brexit using the E3ME macro-sectoral model

Topic: Modelling the effects of Brexit I
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(1) Research question
This paper estimates the economic impact of Brexit on the UK under a number of different types of exit.
(2) Method used
A series of scenarios is constructed to reflect alternative possible trading relationships with Europe, ranging from a â€˜Norwayâ€™ scenario where the UK remains in the European Economic Area (EEA), to a â€˜No Dealâ€™ scenario, where the UK-EU trading relationship reverts to WTO rules. The modelling focuses on the impacts on trade, investment, migration/the labour market and prices, drawing implications for regions and poor households. The analysis applies E3ME, a global macroeconomic model that captures bilateral trade relationships between the UK, each EU Member State and key global trading partners. E3ME includes a series of econometric equations to estimate the behaviour of firms and households in response to economic drivers and applies an input-output framework to model industry interdependencies.
(3) Data used
Input-output tables and time series macroeconomic and sector/product data for final expenditure, prices, output, value added and jobs from statistical offices. Assumptions drawn from the literature, notably for the tariff-equivalence of non-tariff barriers by product and the impact that migration has had on unemployment and wages.
(4) Novelty of the research
The analysis goes beyond purely macroeconomic results, examining the implications for sectors, regions and poor households.