The environmental unintended consequences of a potential EU-MERCOSUR free trade agreement. An analysis for the agri-food industries in Spain.

Topic: Special session: Environmental impact of global value chains reconfiguration
Author: Yolanda Pena-Boquete
Co-Authors: Fernando de la Torre Cuevas

Latin America is seen by the European Union (EU) member states as a key region to trade with. Spain is particularly involved in the region due to its former metropolitan role with a majority of its countries. Nowadays, the EU and MERCOSUR appear to be close to the signature of a free trade agreement (FTA). As a consequence, the direct trade flows between EU and MERCOSUR countries are likely to rise. Spanish policy makers and agricultural sectors present growing concerns regarding this potential FTA related to possible social and environmental effects. According to the literature, beyond direct effects on trade, a free trade agreement can come with unintended consequences, namely in terms of environmental impacts. This paper explores the potential indirect effects of an EU-MERCOSUR free trade agreement in terms of greenhouse gas (GHG) emissions linked to the agri-food industries in Spain.
Our baseline model is based on the Global Trade Analysis Project (GTAP) multiregional input-output model (MRIO). We choose the GTAP MRIO model since it provides sufficient detail on agricultural and food processing sectors. The baseline MRIO is linked to a GHG emission coefficients set, thus accounting for direct and indirect emissions embodied in global trade. Upon the trade coefficients of our baseline MRIO we predicate an industry-disaggregated gravity model using information published by the Centre d'Ã‰tudes Prospectives et d'Informations Internationalis (CEPII). Using our calibrated gravity model calibrated, we estimate two hypothetical MRIOs based on estimated trade coefficientsâ€™ sets. In model 1, we assume the existence of a free trade agreement between the EU and MERCOSUR countries covering only the agricultural and food processing sectors. In model 2, all sectors are equally affected by the free trade agreement. We measure how embodied emissions might vary for Spanish agri-food sectors between our baseline and hypothetical models. Moreover, assuming invariant GHG emission coefficientsâ€”i.e.: the FTA does not introduce less-polluting technologiesâ€”we decompose GHG emission variations in the agri-food sectors of our MRIO model using a structural decomposition analysis. We report effects linked to final demand shifts (namely household consumption), technological change and import substitution. Finally, we study how this potential environmental impacts might affect Spain in meeting her established goals on GHG emissions â€˜reduction in the short run.