

UK consumption-based emission reduction targets

Topic: Input-output analysis for policy making IV

Author: Kate Scott

Co-Authors: John Barrett

The UK has one of the highest net emission transfers questioning whether the current territorial approach to target setting is appropriate and whether enough policy effort is devoted to consumption measures. This paper investigates the relevance of the UK's 80 percent territorial emission reduction target from a consumption-based perspective. A time series of consumption-based accounts is developed from the EORA multi-regional input-output database for 1993 to 2010 to show trends in the UK's carbon footprint. The impact of economic structure, trade patterns and consumer demands on the footprint are explored. The UK's progress is compared with other countries. A series of scenarios compatible with the climate objective of a two degree future are developed for the UK and seven trading regions (including China, India and OECD-Europe). UK consumption emissions are analysed in a world where a two degree future is realised, and compared to a world where international actions don't go beyond pledges made in the Copenhagen Accord. Scenarios incorporate changes in UK production emissions and carbon intensities, UK final demand, UK trade relations and emission intensities in other countries. The consumption scenarios show that the UK's carbon footprint is likely to fall over time as decreases in emission intensities offset any increase in demand from imports. However, the gap between production and consumption emissions remains, and widens more significantly under less ambitious international pathways and higher import demand assumptions. The policy implications of this will be discussed.