

Financial crisis and consumption patterns effects on carbon and material footprint

Topic: Environmental input-output modeling III

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This paper develops a Multi-Regional Input-Output (MRIO) model to assess the impact of the economic and financial crisis on Spanish households' carbon and material footprint. The deep economic standstill and the subsequent strong jobs destruction experienced by the Spanish economy between 2009 and 2013 not only have reduced households' consumption levels, but have also changed the consumption patterns according to different income levels. Thus, energy, material and environmental pressure of this consumption has changed, bringing new paths of growth and production more sustainable in terms of use of natural resources and equivalent CO2 emissions. The MRIO model developed takes into account international trade between Spain and the rest of the World aggregated in six major regions, using data provided by the World Input-Output Database (WIOD). By doing so, we can evaluate which part of Spanish households' carbon and material footprint leaks to other countries through internationally traded imports of final and intermediate goods. Information about Spanish households' consumption made public by the Spanish National Statistics Institute's Family Budget Survey, combined with data published by WIOD, allow us to calculate households' consumption patterns depending on the socio-economic context (rural or urban) and on different income levels (low, mid and high incomes).