

Emissions Embodied in Danish Import. An Unidirectional Trade Model With 51 Countries.

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Author: Peter Rørnøse Jensen

Co-Authors: Thomas Olsen, Dennis Hansen

This paper deals with the job of moving away from the assumption that the amount of emissions embodied in imports is the same as if the imported products had been produced domestically. This has been dealt with in the literature for decades, but nevertheless it has been used by Statistics Denmark until recently. It is a very convenient but rather unrealistic assumption that most likely will lead to wrong results when the economic structures represented by the domestic input-output model and the emission intensities are very different from those in the import countries. Based on conclusions in recent research a full global multi-regional input-output model (MRIO) has been approximated by a unidirectional trade model including 50 countries plus the rest of the world and 59 industries and country specific emission intensities. Most important source of emission data as well as input-output data is EUROSTAT. Results show that estimates of CO₂ emissions embodied in Danish imports had to be increased by 87 percent in 2005 when applying country specific models. Not surprisingly, emissions embodied in imports from China are underestimated the most, and the only emissions that are overestimated are the ones embodied in the Danish imports from Norway and Sweden.