Trade in Value Added - Linking the Flemish regional EE-IO tables with (EE-)MRIO tables

Topic: Input-output analysis for policy making IV
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As Flanders has poor access to primary resources, policy makers have increased interests to analyse the global value chain of Flemish goods and services with a specific focus on resource and material use. Low physical data availability on the use of materials make input-output (IO) analysis and especially the linkage with MRIO suitable to fulfil lacking data. EE-IO tables enable the linking between economically based global value chain analysis and primary material use (and also other environmental extensions) and as such enables the monitoring of material flows on a macroscopic level. The main objective of the PhD is to screen different models that allow to correctly assess material flows in Flanders and to identify, develop and apply a model that is considered most appropriate with respect to the Flemish situation and availability of data.
Flanders (Belgium) is a geographically small region at the centre of Europe with an open economy which is characterised by the low accessibility to own material resources, high labour costs, etc. 98% of Flemish primary resource uses are satisfied by imports (in monetary values); 42% of total intermediary inputs are imported; 24% of Flemish final uses are direct import. With the large amount of imports by the Flemish economy, it is necessary to supplement the Flemish EE-IO tables (2003 and 2007 data) with (EE-)MRIO data to fully incorporate and understand the whole value chain of Flemish goods and services (both intermediate and finished goods and services). These tables capture the worldwide value chain and give insight into the creation of value added throughout the complete value chain of Flemish goods and services related to the composition of value added (employment, use of fixed capital, operating surplus and taxes and subsidies) as well to the use of material resources and the environmental impacts. This information provides a complete, but macro-economic, understanding on social, environmental and economic impacts of policy.
A case on glass recycling is introduced to illustrate the possibilities of this approach for policy analysis. This case illustrates the social and economic impacts of glass recycling for as well Flanders as the rest of world economy considering the whole value chain, thus including shifts between and rebound effects on all related sectors.
The presentation will discuss the framework and most significant findings with regard to the economic impacts and related impact on material flows of the Flemish glass production and consumption with a focus on reuse, repair and recycling.
The PhD is financed and coordinated by the Policy Research Centre Sustainable Materials Management. The EE-IO-model is developed under coordination of the Public Waste Agency of Flanders.