

## Trade flows estimation within inter-country input-output compilation

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The corner stone for building an inter-country input-output (ICIO) table is to estimate trade flows that are consistent among country's IOT. There are many factors that contribute for making the estimation of trade flows a challenging and demanding task: primary data sources asymmetries, different flows valuation, re-exports, merchanting and goods sent abroad for processing are examples of these challenges. In this paper, some of these issues will be addressed so the paper pretends to be a contribution for estimating trade flows needed for the compilation of an ICIO. A methodology to correct trade asymmetries while being consistent with imports and exports reported in country's IOT based on non-linear optimization with constraints is proposed. In addition, a method to discount the effect of re-exports, i.e. country B imports from country A and exports to country C, on the geographical distribution of trade is proposed as well. This methodology is applied to 2010 and 2011 supply and use tables for each EU country. The novelty of the new approach is to provide a complete set of estimates of trade flows, consistent with EU countries' supply tables at basic and purchaser's prices and respective valuation matrices. All this information pretend to be a useful starting point for building an ICIO for EU fully compliant with national IOT.