An Empirical Evaluation of Methods to Estimate Use Tables of Imports

Topic: World Input-Output Database I: Contruction issues

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Nowadays, national input-output tables are usually constructed by combining supply and use tables. If this "best practice" is adopted for the construction of international input-output tables, a first necessary step is to separate use of imports from use of domestically produced products. Since most national statistical agencies do not provide such pairs of use tables at an annual basis, both tables have to be estimated. In this paper, we will introduce and evaluate some methods that could be used for this purpose. The main assumption is that at least one pair of split use tables is available, besides a complete time series of use tables for domestic products and imported products together.

The evaluated methods differ with respect to the type of coefficients that are assumed to be constant, the treatment of the columns related to changes in inventories and the choice with respect to estimating imported use and treating domestic use as a residual, or vice versa.

The relative performance of the methods is evaluated for a number of countries for which multiple benchmarks are available. We use one benchmark to estimate others, mimicking a situation in which these would not have been available. By comparing the estimates with the "true" values contained in the available tables, we obtain indications of the margins of error of the evaluated methods.