TITLE: TESTING ASSUMPTIONS MADE IN THE CONSTRUCTION OF INPUT-OUTPUT TABLES

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ABSTRACT:

The recent revival of input-output analysis in trade, environmental, and productivity studies comes with a controversy on the construction and use of product versus industry tables. The issue emerges at two levels. Product tables and industry tables co-exist and each type can be constructed according to a technology structure or a delivery structure. Most countries adhere to the UN (1993) sanctioned theory of Kop Jansen and ten Raa (1990) and construct product technology model based product tables, but a few hard to neglect countries dissent. This paper shifts attention from theory to empirics and provides encompassing formulas that admit econometric testing of the competing models both for product tables and industry tables. The selection of the most suitable assumption need not be a matter of taste or theoretical justification. Data talk and provide us with acceptance and rejection regions for the competing models allowing a mixed technology model in which some secondary products are treated by one model and others by the other. We used firms' data from Andalusia (Spain) and found that the heterogeneity of the product mix output of industries, the compilation method used for the construction of use tables and possible errors of measurement in the data may play a relevant role on the power of the tests. Unfortunately, the way data are collected by statistical offices does not allow the econometric testing of the competing models for industry tables.