



**International Input-Output Association**

**Working Papers in Input-Output Economics**

**WPIOX 09-011**

**José M. Rueda-Cantuche and Thijs ten Raa**

**Testing the Assumptions Made in  
the Construction of Input-Output Tables**

## **Working Papers in Input-Output Economics**

The Working Papers in Input-Output Economics (WPIOX) archive has been set up under the auspices of the International Input-Output Association. The series aims at disseminating research output amongst those interested in input-output, both academicians and practitioners. The archive contains working papers in input-output economics as defined in its broadest sense. That is, studies that use data collections that are in the format of (or are somehow related to) input-output tables and/or employ input-output type of techniques as tools of analysis.

### **Editors**

Erik Dietzenbacher

Faculty of Economics and Business  
University of Groningen  
PO Box 800  
9700 AV Groningen  
The Netherlands

[h.w.a.dietzenbacher@rug.nl](mailto:h.w.a.dietzenbacher@rug.nl)

Bent Thage

Statistics Denmark  
Sejrøgade 11  
2100 Copenhagen Ø  
Denmark

[bth@dst.dk](mailto:bth@dst.dk)

**Code: WPIOX 09-011**

**Authors: José M. Rueda-Cantuche and Thijs ten Raa**

**Title: Testing the Assumptions Made in  
the Construction of Input-Output Tables**

**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. Product 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. 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. Unfortunately, the way data are collected by statistical offices does not allow testing the competing models for industry tables.

**Keywords:** Input-output tables

**Archives:** Construction of input-output tables; Methods and mathematics

**Correspondence address:**

José M. Rueda-Cantuche  
European Commission - Joint Research Center  
IPTS - Institute for Prospective Technological Studies  
Sustainable Production and Consumption Unit  
Edificio EXPO, C/Inca Garcilaso 3  
E-41092 Sevilla  
Spain

E-mail: [Jose.Rueda-Cantuche@ec.europa.eu](mailto:Jose.Rueda-Cantuche@ec.europa.eu)

**Date of submission:** October 8, 2009