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Kurt Kratena and Gerhard Streicher

Macroeconomic Input-Output Modelling – Structures, Functional Forms and Closure Rules

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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

Bent Thage

Statistics Denmark Sejrøgade 11 2100 Copenhagen Ø Denmark

bth@dst.dk

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Authors: Kurt Kratena and Gerhard Streicher

Title: Macroeconomic Input-Output Modelling – Structures, Functional Forms and Closure Rules

Abstract:

This paper gives an outline of options and strategies for closing input-output (IO) models by stepwise endogenisation of variables and embedding the IO core into a general macroeconomic model. The accounting framework is a modified linear staticIO model built around supply and use tables as provided by EUROSTAT. The modifications take into account that some variables that are determined in the IO quantity and price model will be taken from econometric modelling blocks for production, trade and the price system. The process of endogenising and modelling comprises the different steps of (i) endogenising final demand and factor demand, (ii) applying macroeconomic closure rules, and (iii) full modelling of factor markets. Step (i) comprises the endogenisation of totals of demand as in macroeconomic models or in SAM multiplier models as well as the linking of quantities and prices. Different types of IO models (type I to IV), econometric IO models (EIO) and computable general equilibrium models (CGE) can then be identified as different combinations of these modelling steps. Viewed in this way, the often most "tribal" controversies between the CGE community and the econometric modellers look somewhat exaggerated.

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Correspondence address:

Kurt Kratena Austrian Institute of Economic Research (WIFO) PO Box 91 A-1103 Wien Austria

E-mail: Kurt.Kratena@wifo.ac.at

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