



17th International Input-Output Conference

TITLE: AN ECONOMETRIC INPUT-OUTPUT MODEL FOR EU COUNTRIES BASED ON SUPPLY & USE TABLES: THE PRODUCTION SIDE

AUTHORS: NEUWAHL, FREDERIK ; UIHLEIN, ANDREAS; GENTY, AURELIEN

EMAIL: frederik.neuwahl@ec.europa.eu

COUNTRY: SPAIN

KEYWORDS: SUPPLY & USE TABLES ; ECONOMETRIC INPUT-OUTPUT ; PRODUCTION

PAPER CONFERENCE CODE: 112

FULL PAPER IN CD?: YES

ABSTRACT:

This paper discusses the specification of the production structure in a model, recently introduced by Kratena and Streicher, which integrates econometric and input-output models in order to supersede the linear production technology assumption with more flexible production functions estimated from time series of National Accounts and other data. The model is proposed as a general applicable model for EU countries as it makes use of the full range of information available in the Eurostat database of national accounts, as well as of additional information originating from major research projects sponsored by the EC such as EU KLEMS and EXIOPOL. The model is implemented in GAMS and is simultaneously solved for prices and quantities as a constrained non-linear system such as to be able to integrate flexible production functions. We discuss the results of an operational model prototype with translog formulation of the production block, applied in a demonstrative simulation of energy price shocks impacts in energy intensive and non energy intensive sectors including aspects of technical change embodied in the capital stock.