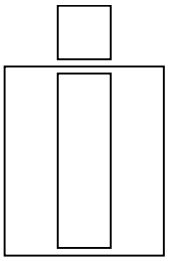

International Input-Output Association

Working Papers in Input-Output Economics

WPIOX 08-006

Karen Turner, Michelle Gilmartin, Peter G. McGregor and J. Kim Swales

The Added Value from Adopting a CGE Approach to Analyse Changes in Environmental Trade Balances

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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: Karen Turner, Michelle Gilmartin, Peter G. McGregor and J. Kim Swales

Title: The Added Value from Adopting a CGE Approach to Analyse Changes in Environmental Trade Balances

Abstract:
The application of multi-region environmental input-output (IO) analysis is invaluable in accounting for pollution flows in the single time period that the accounts relate to, it is limited when the focus is on modelling the impacts of any *marginal change* in activity. This is because a conventional IO model assumes an entirely passive supply-side and is further restricted by the assumption of universal Leontief. Where analysis of marginal changes in activity is required, extension from an IO accounting framework to a more flexible interregional computable general equilibrium approach, where behavioural relationships can be modelled in a more realistic and theory-consistent manner, is appropriate. We introduce a demand stimulus in the UK economy using IO and CGE models. We demonstrate how more theory consistent modelling of both demand and supply side behaviour effects model results, including the impact on the interregional CO2 'trade balance'.

Keywords: CGE modelling; MRIO; CO2 trade balance; Environmental responsibility

Archives: CGE models and econometrics; Environmental studies; (Inter-)Regional studies

Correspondence address:
Karen Turner
Department of Economics
University of Strathclyde
Sir William Duncan Building
130 Rottenrow
Glasgow G4 0GE
UK

E-mail: karen.turner@strath.ac.uk

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