

Regional input-output modeling for policy analysis: The case of agro-food sector in border regions of Germany, Greece and Czech Republic

Topic: Input-output analysis for policy making 3

Author: Efstratios Loizou

Co-Authors: Aleš Kuhar, Antoaneta Golemanova Kuhar, Vilém Semerák

Abstract:

Systematic analysis and design of regional and development-oriented policies requires appropriate methodology, which takes into account intersectoral linkages and which should ideally be based on regional input-output (IO) tables. Unfortunately their construction from survey- and micro-data is prohibitively expensive which causes that especially the countries which need efficient policies for their development often decide about such policies without any deeper economic analysis.

Our paper focuses on two topics: (i) methodology of estimation of regional IO tables when official tables are not available; and (ii) applied policy-relevant analysis based on the estimated IO tables. The applied analysis focuses on the agro-food sector (food production chain) as a sector which may not play a dominant role at national level but which can be of extreme importance for regional economies.

A modified version of GRIT regionalization technique is applied which relies on Flegg et al. (1995) location quotients, on selected NUTS 2 level regions in three different countries (Germany, Greece, and the Czech Republic). The estimated RIOTs were subsequently used for analysis of regional intersectoral dependencies and for evaluation of regional importance of agro-food production chain for regional production and employment. We demonstrate that this approach makes regional-level input-output analysis a viable and cost-efficient tool in realistic evaluation of not only the economic role of the agro-food sector but also a tool useful for the design of efficient regional policies.

Keywords: input-output analysis, regionalization, intersectoral linkages, GRIT, agro-food sector