

VALIDATING POLICY INDUCED ECONOMIC CHANGE USING SEQUENTIAL GENERAL EQUILIBRIUM SAMs

Topic: Special session on regional impact analysis

Author: Manuel Alejandro Cardenete Flores

Co-Authors: CARMEN LIMA, Ferran Sancho

In this paper we explore the capacity of computable general equilibrium (CGE) models to track down policy induced economic changes and their ability to generate contrastable data for an economy. We start from an empirically built regional Social Accounting Matrix (SAM) which is then used to construct a first stage CGE model. The model is perturbed with a set of policy shocks related to European Union Structural Funds 2000-2005 invested into the region of Andalusia in the south of Spain. The counterfactual equilibrium is translated into a virtual SAM, conformal with the initial one, which is in turn reused to calibrate the next stage in the CGE modeling. And so on until we reach the last stage and all European funds yearly invested have been absorbed by the economy. Since at the end of the process another empirical SAM is available, we can compare it with the terminally produced virtual SAM. The comparison shows the sequence of SAMs to provide a very good fit to the actual data in the empirical SAM. Regional GDP and unemployment rates are two examples of the close approximation. With this novel approach we evaluate, from the methodological viewpoint, the projection capabilities of CGE modeling and at the same time we provide an empirical assessment of the said European policies.

Keywords: Social accounting matrices, applied general equilibrium, impact analysis, European regional policy.

JEL Classification: C67, C68, O21, D57.