

Comparative analysis of endogenization methods of the final demand component parts

Topic: Regional input-output modeling I (Chair: Everlam Montibeler, The Federal Rural University of Rio de Janeiro)

Author: Alsu SAYAPOVA

Co-Authors: Rustam Ishbulatov, Vildan Gaiazov

The paper studies different approaches to the closing of Input-Output models by endogenization of component parts of the final demand. The authors proved that the closing of the Input-Output model through the transfer of certain columns of the final demand and the corresponding rows of value added into the table of interindustry flows of goods, provided that certain conditions are met, is equivalent to round-by-round calculations with the classic (open) Input-Output model. Considering a particularly acute problem of information content for regional Input-Output tables, approbation of different approaches was carried out taking as an example data from the regional Input-Output table (for the Republic of Bashkortostan, Russian Federation). Household consumption, which is the major part of the final demand, is considered as the endogenized component part. Apart from the two indicated variations of household consumption endogenization, more complex modifications of the classic Input-Output model are being studied including equations for the generation and distribution of income and industry demand volumes, also taking into account separate assessment of final consumption due to natural economy and final consumption due to cash incomes of the population. Based on an empirical analysis of different calculation options, the possibilities of using certain models depending on the availability of regional statistics and the problems solved with the help of the models, are studied. A comparative analysis of the calculation results is also carried out based on various model options for the national economy of Russia.

Keywords: open models and closed models, remaining final demand, regional IO models.