

Comparative analysis of methods for assessing the value transfer in the formation of the final product

Topic: Methodological aspects of input-output analysis I

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The aim of the research is a comparative analysis of different methods for assessing the transfer of the value added in the formation of the final product. This issue in terms of content is reduced to estimating degree of participation of domestic and foreign manufacturers in products' value creation for consumption, capital formation and exports. An overview of methods to solve this problem on the basis of input-output model is made in the paper. Russian researchers' approaches are also considered among the methods for assessing the transfer of value added. Review of methods is accompanied with an identification of degree of difference between the approaches based on mathematical analysis of Leontief inverse properties for NIOTs and WIOTs. Empirical calculations are also performed to assess the value added structure of the final domestic products through national and world input-output tables in the example of Russia. International input-output model is based on the WIOD database. These calculations require appropriate modification of Russian input-output tables. Symmetric input-output tables are published as product-by-product tables in Russia, while WIOTs are published as industry-by-industry tables in WIOD. Therefore, the Russian symmetric tables are converted to the industry-by-industry form. Analysis of the results of calculations performed by various methods, allows us to decompose the cost of the final product on the value added produced by groups of domestic and foreign manufacturers.

The calculations show that the dependence on import of Russian final consumption and accumulation is significantly higher than assumed in assessing it on a gross basis. It should also be mentioned that imports into intermediate consumption is undeniably more profitable for the country than imports for the needs of final consumption.

Keywords: National and World Input-Output Tables (NIOT & WIOT), Leontief inverse, value added.