

Methodological Proposal for the Estimation of Regional Technical Coefficients for the Construction of Regional Input Output Matrix, with a Bottom-up Approach.

Topic: (10.7) Regional input-output modeling (2)

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The importance of developing regional input-output matrices through a bottom-up approach rests on the analysis of interdependencies at the inter- and intra-regional levels. The construction of regional product input matrices, with the bottom-up approach, presents problems associated with the economic information available locally. Direct methods (survey) imply high costs in monetary terms and processing time. Therefore, the creation of regional accounts, using the bottom-up approach, aims to use the information available at the local level, except in cases where data are practically non-existent, where estimates can be made from information built from below.

The construction of input-output matrices requires the estimation of regional technical coefficients, since these differ from the national technical coefficients. The technical coefficients consist of an internal production component and an import component, the latter given by the import coefficients. In this way, regional import coefficients are also different due to the degree of productive specialization of each region and their capacity to generate exportable surplus, as well as the degree of interregional interaction.

National coefficients fail to capture regional productivities, as they do not consider the spatial focus of the economy. From the bottom-up approach, the calculation of regional technical coefficients, requires the calculation of regional import coefficients. Therefore, the question guiding the research is: What can be the procedure for the calculation of regional technical coefficients? In order to answer, the following methodology is proposed: 1. Identification of the functional areas of the study region (subregions); 2. Construction of a system of regional accounts for the area of study; 3. Estimation of regional technical coefficients and regional import coefficients, taking as reference the economic base model, with an adjustment for local estimation, by identifying the economic activities and their productivities in each of the subregions of study. As an application case, the area corresponding to the Metropolitan Zone of Mexico City is considered, using economic census data.

The research constitutes an exploratory analysis, where a review will be done on the techniques used for the construction of regional coefficients. In this way, the novelty of this research goes in two senses: the first one is that it represents a methodological contribution in the construction of the regional technical coefficients and regional import coefficients, thus constituting, one of the main steps in the construction of regional input-output matrices, from a bottom-up approach; and the second is that it represents a form of application of the metropolitan model.