

## **Global updating of supply-use tables with parameter calibration of estimation errors**

Topic: Methodological aspects of input-output analysis 2

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Supply-Use tables (SUTs) are increasingly used in input-output analysis. Consequently, in recent years there is a growing interest in obtaining convergent updates not only of square matrices, but also of rectangular ones. The RAS technique is the most widely used updating method. The basic RAS procedure presents a number of advantages, but it suffers also from one important limitation: it requires information about the row and column sums of the matrices that will be updated.

The global procedure to distribute estimation differences presents an alternative for matrix updating that avoids this limitation. It consists in a scale algorithm that varies the restrictions of the optimization program one at a time in each iterative stage. This procedure allows to use any variant of RAS to update SUTs without the need to know in advance the values of row and column sums.

This paper presents a mechanism that improves the performance of this procedure. The mechanism consists in going back in time through adjustments of survey SUTs to detect influential row parameters for the distribution of the difference in the estimation of the individual elements of the matrices. Once a plausible calibration of these parameters is reached, SUTs can be projected forward in time in a simple and efficient way.