

## **A non-linear Leontief type input-output model**

Topic: Methodological aspects of input-output analysis 3

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In this paper, a non-linear Leontief type input-output model is proposed based on non-linear production relations by sector of economic activity. Also, the paper derives relevant measures of returns to scale, productivity and efficiency including estimates of the traditional input-output matrix. Furthermore, it proposes a method for its empirical estimation based on econometrics. The proposed model overcomes the limitations of the traditional linear input-output model. Also, it is able of providing estimates of the input-output matrix based on real time data and established econometric techniques, instead of relying on ex-post estimates based on accounting approaches. The paper will hopefully contribute in conventional input-output analysis.