

## **Theory of Programming and Political Economy: an alternative introduction based on Sraffa, Leontief and Lange**

Topic: Methodological aspects of input-output analysis 2

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This paper introduces the theory of economic programming on the basis of the basic model of Production of Commodities by Means of Commodities with special care of two points: the union of the qualitative and quantitative analysis and the contextualization of the historical development of the input-output economics. The model of Sraffa, the Leontief matrices and the Political Economy of Marxist tradition, represented by the introduction to econometrics by Oskar Lange, are related with help of the concepts of planning and the law of value. The objective is to introduce the theory of programming on the basis of the simplest model presented by Sraffa (1960). Departing from the equations in Production of Commodities by Means of Commodities and from its economic interpretation, it will be possible to establish the relationship between Sraffa's model, the Leontief matrices and the Political Economy of Marxist tradition represented by Oskar Lange. So, the introduction to the theory of economic planning made here has the peculiarity of maintaining the quantitative and the qualitative aspects in a dialectical relationship. In doing so, we hope to eliminate occasional conflicts which might originate from the separation of economists into two opposite poles (the historical-qualitative and the technical-mathematical) and to help to organize the contributions of three great economists of the 20th century.