TITLE: SUPPLY QUANTITATIVE MODEL À LA LEONTIEF VERSUS GHOSH'S ALLOCATION MODEL

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ABSTRACT:

The paper presents the differences between the supply quantitative model à la Leontief and Ghosh's allocation model, commonly renaming as "output", "supply", and "supply driving" model in the input-output literature; and discusses their repercussions on the using of these models.   First, the supply quantitative model à la Leontief can be formulated in both physical and monetary terms enabling the interconnection between quantities and prices. While Ghosh's model can be formulated only in monetary terms and therefore there is no connection between quantities and prices.   Second, the supply quantitative model à la Leontief is based on the output coefficients of primary factors and input coefficients of commodities. The output coefficients are reciprocals of the inputs coefficients. Hence, this model allows us to define the total supplied quantities of commodities for any given supplied quantity of primary factors, and consequently to define the final uses of commodities. Such approach allows us to manipulate by each components of primary factor (types of labour or fixed capital). While Ghosh's model is based on the allocation coefficients of commodities, which are not reciprocals of the input coefficients, and on the input coefficients of primary factors, and therefore, allows manipulate generally by an aggregate magnitude of value added.   Finally, and most importantly, the supply quantitative model à la Leontief is equivalent to the demand quantitative model system of Leontief, while Ghosh's model differs from the demand quantitative model system of Leontief.   Therefore: (1) using of the supply quantitative model à la Leontief for the planning and forecasting is compatible with the demand quantitative model system of Leontief, while Ghosh's model is incompatible and its using may yield incorrect conclusions; the Ghosh's model might be useful for analysis of empirical input-output table; (2) renaming Ghosh's allocation model as "output", "supply", and "supply driving" model is incorrect.