

## **static input-output model**

### **Mathematical base and practical application**

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input-output tables have a great importance in clarifying the macroeconomic state and interrelationships between different economic activities and compiling the necessary models for measurement, analysis and prediction, which help the decision maker to see more clearly and comprehensively the economic situation in light of the great development and variety of economic activities which cause obstacles for decision makers to take a rational economic decision because of these interrelationships. This paper present the mathematical base for static input-output model by using technical coefficient matrix for inputs (classical model) and technical coefficient matrix for outputs (physical model), and apply that on input-output table 2008 / 2009 for Egypt which have 44 activities in intermediate demand matrix represent the final form for the static model which help us to understand the interrelationships between the activities and know the leader activities in the economy and analyze the position and structure of the current situation for the Egyptian economy and predict by the activities production when we expect the final demand or value added which be useful for analyses of the economic policies and help the decision makers to adopt the best economic policies. at the end we will compare between the two models from its result and try to determine the best model classical or physical. The paper will describe input-output table, the mathematical static input-output model, the Egyptian static input-output model for 44 activities, and how we make prediction and analysis by using the Egyptian model.

Key words: Input-output table, Intermediate demand, Final demand, Value added.