

Regularities in Prices of Production and the Concentration of Compositions of Capitals

Topic: (7.1) Mathematical Treatments of Input-Output Relationships

Author: Daniel TORRES

Recent developments in price of production models have proposed a hypothesis on the structure of the input coefficient matrices to explain the empirical near-linearity and monotonicity found in prices as a function of income distribution --the tendency towards zero of subdominant eigenvalues. The objective of this paper is twofold: First, based on the behavior of observed eigenvalues, the paper shows that they cannot explain by their own the regularities found in prices of production. Second, it is shown theoretically and empirically the existence and relevance of an additional force acting on the input matrix and the labor coefficient vector: the concentration of industries' vertically integrated compositions of capital around their average. It is argued that the combined effect of these two factors produces the empirical regularities in relative prices. The tendency of the vertically integrated labor to means of production proportions to cluster around their average reveals the existence of an economic force acting on the structure of technology of observable economies and calls for an explanation. The paper relies on the US 1987-2007 Input-Output accounts, at the highest disaggregation level (between 370-466 sectors), for the empirical evidence in this paper