Relative Advantage Production Position in the Global Value Chain

Topic: Input-Output Theory and Methodology (1) Author: Xiang Gao

As the global value chain has become a popular topic in the past couple of decades, the measurement of production position in the global value chain has been a hot and essential issue discussed by researchers. This paper defines a new indicatorâ€"the relative advantage production position (abbreviated as RAPP)â€"which is based on the input-output model and Layer Lemma. The paper also produces an algorithm to calculate RAPP. An industry's RAPP is measured as a certain step in the global value chain. At this step, the industry's relative output is more than that at the step nearby. RAPP not only indicates the position of the industries or economies in the global value chain as other indicators do but also more appropriately answers the question: at which step does a certain industry play an important role in the global value chain? To further examine RAPPs, the paper conducts an empirical analysis based on several national input-output tables and world input-output tables to test the hypotheses drawn from the definition of RAPP. There is also a discussion on the differences between RAPP and two popular indicators and its limitations.