Measuring and Explaining Resource Misallocation Across Industries and its Impact on China's Aggregate TFP Growth

Harry X Wu
Hitotsubashi University, Japan

Zhongwen Zhang
Peking University, China

Paper Abstract: We propose an approach to better address the resource misallocation problem that is observed particularly in emerging economies such as China and India due to institutional deficiencies (e.g. Hsieh and Klenow, 2009). By incorporating the Domar aggregation scheme, Jorgenson's aggregate production possibility frontier framework is able to quantify a net factor reallocation effect across industries on the aggregate TFP growth (Jorgenson *et al*., 2005). However, it is unable to identify the industry origin of resource misallocation that essentially drives the economy-wide reallocation process. By adopting an Aoki-type decomposing approach (Aoki, 2012), yet fully taking into account intermediate inputs as in Jorgenson *et al*. (2005), this approach is able to measure the degree of industry-specific factor misallocation by relative distortion coefficient (RDC) and then account for the change of RDC for all industries as an aggregate factor reallocation effect (RE), which is conceptually made up to the RE of Jorgensonian model, and further to estimate industry-specific RE by factor using a counterfactual approach. We have preliminarily applied this approach to the new version of the China Industry Productivity (CIP) data. Besides, we also empirically test our institutional argument for resource misallocation by estimating a set of RE models with explanatory variables to capture the role of state.