

Energy Consumption Coefficient Comparison of Outsourcing to China

Topic: Vertical specialization and outsourcing 2

Author: Cuihong Yang

Co-Authors: Erik Dietzenbacher

China is a major destination of international outsourcing. Processing trade accounts for around 50% of China's total trade volume. Comparing with "ordinary" export, processing export generates much lower value added for China, since its domestic economic activity much less than other exports type, its intermediate use structure is quite different from other products. On the other hand, processing export is expected to have lower energy consumption coefficient, especially when considering the chain effect across sectors, i.e., total energy consumption coefficient, which implies that though processing exports is economically inefficient but may be 'friendly' in both energy saving and environmental pollution within China. In this paper, we employed a non-competitive input-output model capturing China's processing trade, of which China's domestic production is divided into three parts: production for domestic use only, processing exports, non-processing exports and other production of FIEs, to conduct comparative analysis on energy consumption of different production activities. Due to data limits, we proposed two kinds of treatment to estimate the direct energy consumption coefficients by different production type. Since most of the intermediate material of processing exports is imported, processing trade is less intensive as a whole in using China's energy.