

New Chinese Input-Output Tables: Considering Firm Size and Ownership

Topic: Compilation of National Supply, Use and Input-Output Tables

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Abstract: Firms in China within the same industry but with different ownership and size have very different production technologies, energy efficiency, market powers and might face very different regulations, policy supports, or financial conditions. This fact has largely been ignored in most of the existing input-output (IO) empirical analysis literature due to the lack of relevant information on firm heterogeneity, thus potentially brings great challenges for researchers and policymakers who are facing complex issues relating to both firm size and ownership in China. Through matching almost all relevant Chinese economic census, firm level industry survey data, product and firm level customs trade statistics, and firm level taxation survey data, we aim to compile the first-ever time series Chinese IO tables, in which firm ownership (stated-owned, foreign-invested and private firms), and firm size (large-, medium- and small-sized) information is explicitly involved for the five benchmark years between 1997-2017. A linear programming method is used to compile this new type of Chinese IO tables and the corresponding satellite accounts for CO2 emissions, pollution (Wastewater, Chemical Oxygen Demand, Ammonia Nitrogen, SO2 Emissions, Particulate Matter, and Nitrogen Oxides), and patents (Invention, Industrial Design, Utility Model) by industry, firm size and ownership are also constructed. This work provides solid foundations for a diverse range of innovative IO-based research for China, in which firm heterogeneity information about size and ownership matters.