

An Adjustment of China's Energy Consumption Data and the Estimation of the Sectoral Energy Intensity

Topic: Input-Output Analysis: Energy Policies - II

Author: Lingxiu ZHU

Co-Authors: Cuihong YANG, Erik DIETZENBACHER

China's energy consumption has been rapidly increasing along with its economic boom, leading to more concern about the global environment and climate change. Previous studies have discussed aspects of reliability and consistency in China's energy data. In so doing, they particularly focused on the time dimension (e.g. inconsistencies in time-series data) and on the size dimension (e.g. inconsistencies when aggregating provincial to national data). However, in this paper, we also observe data inconsistencies within a single specific year for China's energy consumption. These inconsistencies exist at the aggregate (i.e. overall national) level and at the sectoral level. Therefore, this paper investigates the origins of the inconsistencies by analyzing the data processing. Taking the year 2017 as an example, a solution is proposed. This yields a new estimate for the sectoral energy consumption and the energy intensity. Finally, we replicate an existing study using our adapted energy data and compare the results. The comparison shows a gap suggesting that more attention should be paid to the energy accounting systems.