Construction of a Multi-regional Input-Output Table for Nagoya Metropolitan Area, Japan

Topic: Regional input-output modeling III

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Japan has many input-output tables, national and regional. We focus our attention to Nagoya metropolitan area, in which the headquarter office of Toyota Motors is located and many manufacturing industries of transport equipment and other machinery are concentrated. This area is included in the region covered by three prefectures; Aichi, Gifu, and Mie. To construct a multi-regional input-output table from these prefecture tables, at first, we break down each prefecture table with 186 sectors to several smaller sub-regional tables. Then we combine each table to one multi-regional input output table, which consists of 14 sub regions. Transaction values among sub-regions of each sector are estimated by the gravity-RAS method, in which the initial values are obtained by the gravity model. Using the multi-regional table, we discuss the structural characteristics of Nagoya metropolitan area. We could show a way to cope with the inconsistency of regional definitions, administrative and economic, in the input-output analysis.