

Converting Supply and Use Tables to Symmetric Input-Output Table in Asia: Some Technical Considerations

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Input-Out Table (IOT) is an integral part of System of National Account (SNA). It primarily aims to record not only the transaction structure of goods and services but also the production technology that supports such transactions. The IOT is a static framework that allows a more integrated approach for compiling consistent GDP from the producer, income and expenditure approaches.

Despite the seeming importance of IOT for sound economic and policy planning, constraints in data, financial resources and capacity of national statistics offices in IO compilation in a number of developing countries in Asia inhibit stakeholders including the governments, policymakers and researchers to fully utilize the IOTs. The SNA recommends the supply and use tables (SUT) as a more sustainable approach to address the challenges in compiling the IOT. The SUT enables the construction of national and international input-output tables (IOTs). In Southeast Asia, most countries compile their IOTs by traditional direct approach (ex: Japan) which involves the establishing of input and output structures based on actual survey data collected specifically for IO or the traditional Make (U) and Use (V) system. SUT on the other hand, is still not being compiled on a regular basis. In 2012 and 2014, the ADB published SUTs and mathematically transformed SUTs to IOTs for 18 countries, respectively. This implies that the underlying assumptions and limitations of the chosen model are carried forward in the IOTs.

Mathematically transforming SUT to IOT, in particular fails to consider the availability of recent and data. Harmonizing the SIOT with the actual data condition and theoretical soundness of the estimates remain critical. Keeping theoretical consistency with the realistic movements and/or shifts in economic structure is important. There is a need, therefore, to apply redefinition method such that SUTs converted to SIOT can be adjusted to take into account available information. This may include: published levels of national accounts, value added, expenditure, inter-industry linkages and consistencies of structures for similar industries.

This paper will analyze the technical consistencies of benchmark national IOT of Viet Nam with the IOT converted using the conventional SUT to IOT transformation models and the proposed redefinition method. Vietnam's benchmark IOT will serve as the baseline estimate. Consistency of estimates using the assumption of the industrial structure (production technology and sales structure) will then be evaluated with the redefinition and compared with the SUT-SIOT from the ADB project.

Keywords: supply, use, national, input-output, harmonization, the redefinition method

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