Extending the ICIO framework: updated OECD datasets on multinational enterprises, services trade by mode of supply, and global value chains in volume terms

Topic: Extending the Inter-Country Input-Output Framework: Updated OECD Datasets, Methods, and Policy Applications

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The OECD inter-country input-output (ICIO) framework and the Trade in Value Added (TiVA) indicators built on it have become core empirical tools for policy analysis and academic research on global value chains (GVCs), trade policy, and multinational production. In recent years, the framework has been extended in several directions to address analytical questions that standard ICIO tables were not originally designed to answer. This paper presents three such extensions â€“ the Analytical AMNE database on multinational enterprises, the TiVA-MoS dataset on trade in services by mode of supply, and ICIO tables in previous year's prices â€“ for which updated datasets will be released on 29 June 2026.

The first extension concerns the role of multinational enterprises (MNEs). Standard ICIO tables treat all firms within a country-industry cell as a single entity, obscuring differences in the behavior and economic footprint of foreign-owned affiliates, domestic multinationals, and other domestic firms. The Analytical AMNE database addresses this by extending the ICIO tables with an ownership dimension. Drawing on official AMNE/FATS statistics, it provides a globally consistent breakdown of output, value added, and trade across firm categories, along with a set of ownership-split ICIO tables that enable analysis of the trade-investment nexus at the industry and bilateral level.

The second extension focuses on trade in services. A central limitation of standard trade statistics is that services supplied through the commercial presence of foreign affiliates abroad (Mode 3 under GATS) are largely absent from balance-of-payments data. Nevertheless, Mode 3 trade is estimated to account for close to half of all global services trade. The TiVA-MoS dataset extends TiVA indicators to cover the GATS modes of supply, distinguishing cross-border supply (Modes 1 and 4 combined), consumption abroad (Mode 2), and commercial presence (Mode 3). Built on the OECD ICIO and Analytical AMNE frameworks, it provides bilateral estimates of services trade by mode and introduces TiVA indicators that trace the role of different delivery channels across supply chains.

The third extension concerns the construction of chained volume indices. Standard ICIO tables are expressed in current prices, conflating price and volume movements over time. ICIO tables in previous year's prices enable the construction of volume indices and decomposition of time-series changes in import intensity, GVC participation, and real value-added growth, in line with the deflation framework of the System of National Accounts.

The paper describes key methodological choices in each update and illustrates each datasetâ€™s analytical value through empirical results.

Beyond expanding the analytical scope of the framework, an important challenge concerns the timeliness of ICIO-based indicators. Current releases are typically available with a lag of several years relative to the reference period, limiting their use for near-term policy analysis. The paper concludes by discussing ongoing work aimed at improving the timeliness of the framework through the construction of preliminary estimates based on a reduced information set, with the aim of making key indicators available ahead of the full data release.