Analysis of the domestic value added of Brazilian exports, using Inter-Country Input-Output (ICIO) and Trade in Value adeed (TiVA) for the year 2022

Topic: Input-Output Analysis: Trade and Global Value Chains policies (9)
Author: DOUGLAS BRANCO DIAS SANTANA
Co-Authors: Ricardo Luis Lopes

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This article analyzes the structure of domestic value added incorporated into Brazilian exports using the Trade in Value Added (TiVA) methodology. In the context of increasing fragmentation of production and the consolidation of global value chains (GVCs), traditional gross export statistics have become insufficient to assess a country's effective participation in international trade. By focusing on value-added decomposition, this study provides a more accurate measure of the income and production generated domestically by export activities.
Using the OECD Inter-Country Input-Output (ICIO) database for the year 2022, the research estimates the domestic value added generated directly and indirectly by Brazilian exports, as well as their sectoral composition. The choice of 2022 is particularly relevant, as it reflects the post-pandemic reorganization of global production networks and recent structural changes in trade patterns. The empirical strategy follows the standard Leontief decomposition framework, allowing the identification of intersectoral linkages and multiplier effects associated with export demand with Trade in Value Added (TiVA) from OCDE (2022).
The results indicate that the service sector accounts for the largest share of domestic value added embodied in Brazilian exports, representing approximately 44% of the total. Industry follows with about 40%, while agriculture contributes roughly 16%. These findings reveal the central role of service activities, including transportation, professional services, administrative support, public administration, and accommodation and food services in sustaining export-oriented production, even when exported goods are predominantly primary or manufactured products. The predominance of services in domestic value added contrasts with the conventional perception of Brazil as primarily a commodity exporter.
The decomposition between direct and indirect value added further highlights the systemic nature of export-related production. Primary and extractive sectors such as agriculture, oil and natural gas extraction, and metal ore mining generate substantial indirect value added, indicating strong backward linkages and significant multiplier effects within domestic supply chains. Although these sectors are commonly associated with low value-added intensity, the results show that their export performance stimulates a wide range of upstream activities. Manufacturing sectors, particularly food, beverages, and tobacco, exhibit a more balanced distribution between direct and indirect value added, suggesting greater internalization of income generation and employment effects.
By providing updated evidence based on the latest ICIO data, this study contributes to the empirical literature on emerging economiesâ€™ participation in GVCs. It offers a structural interpretation of Brazilâ€™s role in global production networks and advances the debate on industrial and trade policy design. The findings underscore the importance of strengthening domestic intersectoral linkages and promoting upgrading strategies aimed at increasing value retention within the national economy. In addition, the analysis demonstrates that assessments of export performance must move beyond gross trade flows and incorporate value-added perspectives to better capture the true developmental impact of international integration.

Keywords: Input-Output Analysis, Trade in Value Added (TiVA), Global Value Chains, Brazil.