Employment and income distribution in global supply chains: The case of South America

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The global production landscape has undergone significant changes in the last century. Institutional reforms and technological improvements have contributed to the so-called "fragmentation of production". Production tasks are performed by numerous geographically dispersed firms, leading to the emergence of global supply chains. From the countries' point of view, specialisation is no longer in finished products but in a specific set of activities that contribute to producing one or many of the latter.

Studies on Latin America have reached a consensus on two important aspects of the region's participation in production fragmentation. Firstly, Latin America's participation in this process is relatively low and heterogeneous. South American countries predominantly participate as natural resource providers. In contrast, Central American countries and Mexico are primarily involved in the final stages, such as manufacturing assembly and providing information/computer and communication services. Secondly, the factors influencing this low participation can be classified as technical, geographical, and institutional. Technical aspects are related to the production function of natural resource extraction and exploitation, which is hard to 'unbundle'. Geographical factors include natural barriers such as the Andes and the Amazon, which affect regional transportation and communication, and the long distance to the top production and consumption centres in North America, Europe, and Asia. Institutional factors such as higher real wages and poor infrastructure quality also play a role.

Despite the growing evidence about the extent and type of participation in production fragmentation for Latin American countries, little attention has been paid to the distributional and employment profile associated with the alternative types of engagements in supply chains. How does income distribution change according to the kind of chain considered? What functions of employment are related to each type of engagement? Does the employment profile explain the differences in income distribution? What role does the destination of the final output play?

To answer these questions, we employ a Global Input-Output Model. From a single country's point of view, we consider final external demand and distinguish six components within it according to the location of production (domestic, within and outside the region) and the destination of the final output (within and outside the region). We analyse functional income distribution, average unit wage and employment structure induced by these sources of external demand.

The data employed is the 2021 edition of OECD Inter-Country Input-Output (ICIO) Tables. Additionally, we use data from household surveys. We study the cases of Argentina, Brazil, Chile, Colombia, and Peru for 2018.

We show how the reinforcement of South America's historical trade pattern based on primary activities during production fragmentation has affected its income distribution and employment. Unit wages and labour compensation shares in global value chain income are relatively low in South American countries. Moreover, the source of external demand influences distribution differently. Trading with East and Southeast Asian countries is more favourable to countries belonging to the so-called Pacific Alliance (Chile, Colombia, and Peru). In contrast, it is less favourable to Mercosur countries (Argentina and Brazil), a remarkable insight to consider given the growing presence of China in the region. Finally, integration levels into regional supply chains are relatively low. However, it can potentially improve income distribution and raise wages since the production induced involves sectors and employments of higher technological complexity.