

Income inequality in Global Value Chains: proposing alternative measures in a context of vertically-integrated sectors

Topic: Distributive consequences, allocative possibilities and resilience

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From an evolutionary perspective, the world is ever-changing. One of the most important changes of the past few decades has been the globalization of production processes, which especially intensified during the so-called “third wave of globalization”TM, from the 1990s onwards. The international framework of production has notably changed, in the sense that nowadays goods and services are not entirely produced in just one country, and many production processes lie fragmented all around the world: hence, the configuration of global production around the concept of Global Value Chains (from now on, GVCs).

This configuration of global production processes (and all in all, the intensification of globalization) has naturally brought about many economic and social implications, many of which have yet to be unveiled. Namely, concerning the evolution of the global distribution of income in net terms is still a complicated task, as globalization has traditionally been considered as a process resulting in “winners and losers”TM. In this direction, many researchers have wondered whether the economic upgrading that results from the integration into GVCs has brought about a social upgrading or not, in the sense of social cohesion and equality. The issue remains conceptually and empirically complex as the nature of integration into global supply chains varies considerably with respect to the depth of countries’TM participation and their positioning along value chain, ranging from upstream to downstream production.

Building on previous research, most studies have focused on the analysis of direct incomes to study inequality. In other words, the main focus has been on personal income inequality, which has been often approached through Gini indexes “ or some complementary measures such as Theil indexes -, just taking into account the comparison between the proportion of income that lies in the hands of a given proportion of population; that is to say, considering the distribution of income and population in the place where the production takes place (let us refer to this as “direct income and population”).

In contrast to this, this study contributes to a promising and unexplored avenue in the study of income inequality from the perspective of global production. More specifically, we pay attention to the distribution of income along the full supply chain, that is capturing the total income and population that is participating in a production process along GVCs. This means to consider these variables in embodied terms (considering the direct and indirect magnitudes), so that all the backward-pull effects that happen within a sector or country are contemplated. On the basis of this approach, we redefine inequality indexes. The resulting indexes show income inequality in a vision of vertically-integrated sectors, displaying all the links between countries in a production process. In order to fully capture all the intersectoral and geographical relations worldwide, a Multiregional Input-Output (MRIO) model is revealed as key. For this purpose, the latest release of the Inter-Country Input-Output database (OECD) will be used, covering the 1995-2022 for 80 countries and 50 sectors.

In sum, the objective of this research lies, then, in the analysis of global inequality through the calculation and comparison of Gini indexes both in direct and embodied terms. This way, global inequality between countries can be assessed from different facets of production. Furthermore, in order to unveil specific technological patterns, the analysis will be carried out at an aggregation detail of 8 sectors, according to technological levels. It must also be underlined that these indexes will be focused on labor incomes and employment “ rather than total income and population -, as this information is more transparent and easily obtained than that for capital in an input-output framework.

Finally, three sets of Gini indicators will be obtained, analyzing the traditional case (in direct terms), a mixed case (comparing embodied compensations to direct labor) and a vertically-integrated index (comparing compensations to labor, both in embodied terms). Additionally, different aggregations will allow to obtain global, sectoral (according to the Eurostat classification: Primary sector, Energy, High & Medium-High Technology Industry, Medium-Low Technology Industry, Low Technology Industry, High Technology Services and Other Services) and regional indexes (according to geographical criteria: Europe, Asia, Latin America, Africa and NAFTA), so spatial and structural dimensions can be analyzed.

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