

Smile Without a Reason Why: Functional Specialization and Income Distribution in Global Value Chains

Topic: Input-Output Analysis: Employment Policies

Author: Federico Riccio

In recent years, the investigation of labour share dynamics has regained attention in the economic debate, with evidence showing a sustained and widespread decline in the portion of value accrued by workers. Much of this research has focused on advanced countries, finding extensive support for the decline in wage share starting in the 1970s (Karabarbounis and Neiman, 2014). More recently, due to the increased availability of data, similar trends have been detected in developing countries as well (Guschanski and Onaran, 2023; van Treeck, 2020; Riccio et al., 2022).

This research investigates the effects of Global Value Chain (GVC) integration and associated functional specialization on the decline of the labour share of value added. We show that wage compression strategies ease GVCs' participation, increasing firms' international competitiveness, especially in developing countries. Additionally, GVCs integration allows advanced countries to retain more remunerative tasks while pushing emerging markets to specialise in low-skill, low-wage occupations. Combined with the global dissemination of technology and a reduction of worker bargaining power, we identify these phenomena as major contributors to the decrease in the labour share.

Our results show that Global Value Chains (GVCs) are structured hierarchically, with advanced countries receiving higher value from global production networks due to their greater market power and technological advantage. This favourable initial condition allows them to benefit from functional specialization in upstream tasks, which partially offset the decline in their labour share. Unfortunately, production workers are the biggest losers in this process, accounting for most of the drop in labor share. This is especially concerning, since production functions make up more than 50% of the workforce in both advanced and developing countries, leading to a rise in wage inequality globally.

Throughout this work, we use Timmer et al. (2015)'s methodology to track value added in global value chains, decomposing the final product into the value added in each stage of production. Following Chen et al. (2018) decomposition procedure, we combine input-output tables and wage flow in each stage to compute vertically integrated (GVCs) labour share.

We employ world input-output tables (Timmer et al. 2014) that contain data on intermediate inputs which flow across industries as well as across countries. Additionally, we collect information on wages and employment levels from Socio-Economic accounts and on the occupation structure from Timmer et al. (2019). This approach enables us to disentangle the impact of GVC penetration and international functional recombination on worldwide labour share dynamics.