

## What drives the changes in the labour compensation share? A Global Input-Output analysis

Topic: Input-Output Theory and Methodology - I

Author: Gabriel Brondino

Co-Authors: Davide Villani

There is growing research documenting a decrease in the income share of labour compensation over the past years, especially in advanced economies. Despite this growing interest, the discussion regarding the drivers of this process is still open. Specialised scholars point to several factors behind this process, such as technical progress, offshoring, growing market concentration and weakening workers' bargaining power. This paper contributes to this literature by focusing on the manufacturing sector of six Western economies (France, Germany, Italy, Japan, the United Kingdom, and the United States) over the period 2000-2014.

Using a Global Input-Output Model, we compute the domestic labour compensation share of a country's final demand. Different from conventional industry-level analysis, this makes it possible to account for all the direct and indirect, domestic and imported steps of the production chain. Hence, the labour share of income estimated in such a way includes wages paid at all domestic stages to produce and sell finished products.

We restate the labour share as a function of three components: [i] the total (domestic and foreign) labour content per unit of final production (or global vertically integrated labour coefficient); [ii] the ratio of domestic to total employment induced by final demand; and [iii] the average domestic unit wage. Finally, we develop a structural decomposition analysis to assess the contribution of each factor to the evolution of the labour share of income in the six countries analysed. The change in component [i] is deemed as the contribution of technical progress, the change in component [ii] as the contribution of offshoring, and changes in component [iii] reflect the role of domestic labour costs. The latter can be further decomposed to assess the role of unit wage growth and the role of domestic labour reallocation.Â

We focus on manufacturing sectors because it is where offshoring operated more intensively (based on WIOD data, the income induced by final external demand in manufacturing production was around 47% in 2014, while in primary and service activities, it was 16.4 and 12.5%, respectively).

The dataset employed is the World Input-Output Database (WIOD) project (release 2016). This database allows the decomposition at constant prices and, thus, eliminates price effects from the analysis. This feature is important, especially for computing changes in the total labour content per unit of final production.

The proposal is novel with respect to the literature in several aspects. First, the measure of technical change is different, based on changes in physical labour productivity rather than more conventional estimates (e.g., TFP). Second, most of the existing research is based on aggregate or industry-level econometric studies. Instead, this paper looks at vertically integrated sectors (which within a global IO model can be conceived as 'global value chains'). Furthermore, econometric studies do not provide an accurate accounting decomposition as input-output analysis does. Finally, and related to the previous point, the additive decomposition can consider the effects of structural change on domestic labour costs.