The contribution of foreign sourcing to changes in factor shares: a global structural decomposition analysis

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Production patterns have changed substantially at a global scale over the past few decades. Prompted by technological developments and the opening up to trade of China and Central and Eastern Europe, production processes have become increasingly fragmented internationally. As a consequence, a growing amount of intermediates and also final goods are shipped between countries participating in ever more global value chains. A rapidly expanding literature analyses the value added captured by different countries in those global value chains using global multi-regional input-output data and models (e.g. OECD, 2013). Moreover, the emergence of global production patterns and value chains has an influence on the income shares of the different factors of production. As highlighted in Timmer et al. (2014), the income share of high-skilled labour has grown fastest in high-income countries at the expense of the income shares of medium-skilled and low-skilled labour, whereas in low-income countries the income share of capital has been increasing fastest. The aim of this paper is to analyse the contribution of foreign sourcing to these changes in factor income in both high-income and low-income countries and to compare it to the contribution of changes in production technology and final demand. The guestion is whether foreign sourcing really is the main driving force behind changes in factor shares in both high-income and low-income countries. For this purpose, we develop a global structural decomposition analysis (SDA) that isolates the contribution of foreign sourcing to the value added captured by the different factors of production in different countries. We consider foreign sourcing of both intermediates and goods and services delivered to final demand, and we split source countries according to average hourly wage rates. The data used for computing the decomposition come from the recently published World Input-Output Database (WIOD) in previous-year prices. This database contains global multi-regional input-output tables with 40 countries and 35 industries, and we specifically focus on the pre-crisis vears 1995-2007.