The Effect of Global Value Chain Participation on the Labour Share – Evidence from industry-level data

Alexander Guschanski and Ozlem Onaran[1]

Introduction

Global value chains (GVCs) have been credited with contributing to economic growth in advanced economies while providing technological upgrading and development in emerging economies (World Bank, 2020). Yet, as in the case of globalisation more generally, there is increasing acceptance that GVCs might not be working equally well for everybody. Evidence suggests that integration into GVCs with emerging economies negatively affects wages and employment for workers in advanced economies, especially when they are low-skilled (Autor et al., 2016). Similarly, GVCs change functional income distribution, by reducing the share of value added going to workers, thus increasing income inequality (Dao, et al. 2019; Elsby, et al. 2013). As international corporations with headquarters in advanced economies reap large profits, markups for firms in emerging economies appear to be declining (World Bank, 2020), highlighting unequal power relations between buyer firms in advanced economies and supplier firms in emerging economies. GVCs also appear to have differentiated effects on labour markets within emerging economies, with evidence of a growing skill premium for highly educated workers (World Bank, 2020).

We contribute to this literature by providing a comprehensive analysis of the distributional impact of GVCs in advanced as well as emerging economies. In two recent articles (Guschanski and Onaran 2021, 2022) we analyse how GVCs affect the share of value added going to labour (the labour share) in both country groups, thereby taking into account their different positions in the global production chain. On the one hand, we assess how the offshoring of production from advanced to emerging economies affects functional income distribution in advanced economies; on the other hand, we gauge how the labour share in emerging economies is affected when these countries start producing intermediate goods for advanced economies. In addition to quantifying the impact of GVCs on the labour share, these analyses allow us to learn more about the exact channel through which the global fragmentation of production affects income distribution and ultimately to derive policy suggestions for more equitable trade.

This article summarises our analyses. The next section describes our research strategy and data, followed by our findings. The last section discusses policy implications.

How do global value chains affect income distribution?

To assess the impact of GVCs on income distribution we conduct separate econometric analyses of the determinants of the labour share in 14 OECD countries (Australia, Austria, Belgium, France, Finland, Germany, Ireland, Italy, Japan, the Netherlands, Spain, Sweden, the UK and the USA) and seven emerging economies (Brazil, China, India, Indonesia, Mexico,

[1] Institute of Political Economy, Governance, Finance and Accountability, University of Greenwich, London, SE10 9LS, UK. Correspondence: alexander.guschanski@gre.ac.uk.

South Korea, Turkey) for the 1995-2014 period.[2] Our main focus is on the effect of GVCs on the labour share, and we calculate GVCs by relying on international input-output tables provided by the World Input-Output database (Timmer, et al. 2015). Using industry-level data allows us to distinguish the impact on manufacturing and service industries, as well as workers of various skill groups. Differences across industries and skill groups are relevant because GVCs might affect manufacturing industries differently from service industries since manufacturing output is more tradable. Furthermore, economic theory suggests that the impact of GVC integration is likely to vary for workers of different skill groups. Additionally, by using industry-level data, we can focus on the decline of the labour share within industries. Economic theory on distributional effects of GVCs predicts a within-industry (or within-firm) decline of the labour share, and empirically, a within-industry decline has been highlighted as the main driver of the decline in the country-level labour share in both emerging and advanced economies (Dao et al., 2019).

Our analysis allows us to distinguish two main channels through which GVCs affect the labour share that have been highlighted in the literature. According to the first channel, offshoring changes the composition of tasks in production. Advanced economies have incentives to offshore tasks that are either labour-intensive or where workers cannot easily be replaced by machines to low-wage countries. As emerging economies integrate these tasks into their production, their own task composition changes. Previous contributions have shown that this process could lead to declining labour shares in both country groups (Dao, et al. 2019, Elsby, et al. 2013). We label this the technology channel. The second channel highlights how the dismantling of trade barriers and the intensification of trade reduces the bargaining power of labour in advanced economies, as workers in these countries are put in competition with lower-wage workers in emerging economies (Rodrik, 1998; Jayadev, 2007; Onaran, 2009). While this literature is mainly concerned with trade more broadly rather than GVCs specifically, a growing qualitative literature in development studies has highlighted that the integration into GVCs disrupts existing labour relations, with negative consequences for the bargaining power of labour in emerging economies. To accommodate the increasing and volatile demand of international buyers along GVCs, companies in emerging economies increasingly rely on agency work, shift production from factories to workers' homes or temporary work centres and violate labour rights (ILO, 2016; Lund-Thomsen et al., 2012). As the share of this precarious employment increases, the bargaining power of labour is reduced, and the labour share might fall. We label this the bargaining channel. Differentiating the two channels is particularly important for policy suggestions aiming to reverse the well-known decline in the labour share that has been observed in the majority of advanced as well as emerging economies (Karabarbounis and Neiman, 2014).

Our findings provide evidence that the integration into GVCs has contributed to a decline in the labour share in advanced and emerging economies alike. For advanced economies, an increase in offshoring to low-wage countries[3] by 1%-point reduces the labour share by almost 2%-points. Similarly, the labour share declines in emerging economies when the participation

[2] The time period differs by country groups and for individual countries depending on data availability. For exact period covered see Guschanski and Onaran (2021, 2022).
[3] Low-wage countries include the countries in the emerging economies pool as well as a category for the 'rest of the world' based on country classifications in the World Input-Output Database.

in GVCs with advanced economies increases.[4] We estimate that an increase in intra-industry intermediate exports to advanced economies by 1% decreases the labour share in emerging economies by 0.88% on average. We use various control variables and identification procedures relying on both external and internal instrumental variable estimations to gauge whether the technology or the bargaining power channel is the main driver of this process. Our results suggest that GVC participation reduces the labour share via a reduction in the bargaining power of labour for both country groups, consistent with the bargaining power channel. In contrast, we find scant evidence for the hypothesis that the decline in the labour share is driven by changes in the production structure (technology channel) for our sample period. Furthermore, we find that the labour share in both country groups is positively affected by labour market institutions that increase the bargaining power of labour, including trade union density and social government spending, as well as minimum wages.

Policy implications

Offshoring from advanced to emerging economies puts downward pressure on the labour share in advanced economies, while workers in emerging economies, the hosts of the offshored tasks, are equally losing out relatively to capital. Trade integration can increase productivity, but policies should be in place to ensure that labour and capital can share the gains more equally. Notwithstanding the complexity of global production networks, our findings suggest that domestic institutions can be powerful tools to achieve a level playing field between capital and labour. The negative impact of globalization on the labour share is likely to be significantly moderated by stronger bargaining power of labour that can be achieved via an improvement in trade union legislation, increasing minimum wages, improving and enforcing equal pay legislation, increasing the social wage via public goods and social security and international labour standards. These policies must take country-specific environments into account, especially in emerging economies where government-controlled trade unions are sometimes not effective in improving working conditions, or where a large informally-employed labour force is not covered by labour laws (Guschanski and Onaran, 2022). While educational policies are often proposed as a means to reduce inequalities, our results suggest that an attempt to increase the labour share through skill-upgrading alone will not be effective, as medium-skilled (rather than low-skilled) workers have experienced the strongest negative impact of GVC participation, in both advanced and emerging economies. In addition to domestic institutions, international regulations that hold firms in advanced economies responsible for working conditions along their value chain could help to make trade more equitable (World Bank, 2020). Such a law was passed in France and is currently under discussion at the level of the European Union. Yet, as the EU Supply Chain Law is mainly concerned with reducing the violation of labour rights along GVCs, it will not be sufficient to reverse the decline in the labour share, which will require pro-labour policies and international coordination of labour along global supply chains.

[4] Advanced economies include the 14 OECD countries in our advanced economies pool and eastern Europe.

References

Autor, D., D. Dorn, and G. Hanson (2016) 'The China Shock: Learning from Labor-Market Adjustment to Large Changes in Trade', *Annual Review of Economics,* 8(1): 205–240.

Dao, M., M. Das, and Z. Koczan (2019) 'Why Is Labour Receiving a Smaller Share of Global Income?', *Economic Policy* 34(100): 723–59.

Elsby, M. W. L., B. Hobijn, and A. Sahin (2013) 'The Decline of the US Labor Share', *Brookings Papers on Economic Activity*, Fall 2013: 1–63.

Guschanski, A. and Ö. Onaran (2021) 'The Decline in the Wage Share: Falling Bargaining Power of Labour or Technological Progress? Industry-Level Evidence from the OECD', *Socio-Economic Review*. DOI: 10.1093/ser/mwaa031.

Guschanski, A. and Ö. Onaran (2022) 'The Effect of Global Value Chain Participation on the Labour Share: Industry Level Evidence from Emerging Economies', *Development and Change*. In press.

ILO (2016) *Sectoral Studies on Decent Work in Global Supply Chains: Comparative Analysis of Opportunities and Challenges for Social and Economic Upgrading*. Geneva: International Labour Office.

Jayadev, A. (2007) 'Capital account Openness and the Labour Share of Income', *Cambridge Journal of Economics*, 31, 423–443.

Lund-Thomsen, P., K. Nadvi, A. Chan, N. Khara, and H. Xue (2012) 'Labour in Global Value Chains: Work Conditions in Football Manufacturing in China, India and Pakistan', *Development and Change,* 43(6): 1211–37.

Onaran, Ö. (2009) 'Wage Share, Globalization and Crisis: The Case of the Manufacturing Industry in Korea, Mexico and Turkey', *International Review of Applied Economics,* 23(2): 113–34.

Rodrik, D. (1998) 'Capital Mobility and Labor'. Draft paper prepared for the NBER workshop on Trade, Technology, Education, and the U.S. Labor Market, April 30–May 1, 1998. http://j.mp/2oNlmFF.

Timmer, M. P., E. Dietzenbacher, B. Los, R. Stehrer, and G. J. de Vries (2015) 'An Illustrated User Guide to the World Input–Output Database: The Case of Global Automotive Production', *Review of International Economics*, 23, 575–605.

World Bank (2020) *World Development Report 2020: Trading For Development in the Age of Global Value Chains*. Washington: World Bank.