

# Policy Brief

The causes of falling wage share: sectoral and firm level evidence from developed and developing countries – what have we learned?

Özlem Onaran, University of Greenwich  
Alexander Guschanski, University of Greenwich  
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**Corresponding authors:**

Özlem Onaran, Professor of Economics, Director of Greenwich Political Economy Research Centre. University of Greenwich, Park Row, Greenwich, London, SE10 9LS, UK. email: o.onaran@gre.ac.uk.  
Alexander Guschanski, University of Greenwich, email: a.guschanski@greenwich.ac.uk.

## INTRODUCTION

The last four decades have been characterised by drastic changes in the distribution of income between wages and profits in both OECD countries and emerging economies. We have recently analysed the causes of the decline in the wage share in the developed and developing countries for a project titled ‘The causes of falling wage share and prospects for growth with equality in a globalized economy’ for the Institute of New Economic Thinking, and this paper summarizes our findings.<sup>1</sup> We provide evidence that changes in bargaining power, in particular the fall in union density and welfare state retrenchment, as well as financialization and offshoring lie at the core of rising income inequality between labour and capital in both developed and developing economies. We challenge the established consensus that inequality is an unavoidable outcome of technological change or globalisation, and show the importance of labour market institutions and social protection policies.

The first section provides a summary of our findings based on sectoral as well as firm level data for both developed and emerging economies. Section 2 draws policy conclusions from our analysis.

### 1 SUMMARY OF OUR FINDINGS

In our analysis, we contrasted different arguments about the decline in the labour share and identified three general theses in the literature which focus on 1) technological change, 2) bargaining power and 3) the rise of the so-called “superstar firms”. The technological change thesis suggests that changes in the production structure lie at the core of the decline in the labour share. These changes can be brought about either by technological change or globalisation, and are considered to be independent of changes in the relative bargaining power between capital and labour. In contrast, the bargaining power hypothesis sees relative bargaining power between capital and labour as the determining factor of functional income distribution. Here, processes like the erosion of labour unions, decline in public social protection spending, financialisation and globalisation play a crucial role. Lastly, according to the superstar firm thesis the labour share declined due to an increase in market concentration, as a small number of very productive (superstar) firms grew much faster than their competitors.

The focus of empirical research in the neoclassical/ New Keynesian tradition is technological change, while the Political Economy literature mainly focuses on bargaining power. We provide a comprehensive analysis of both factors.

We first analyse the determinants of the wage share (labour compensation as a ratio to value added) using sectoral data with country specific estimations for selected OECD countries ([Guschanski and Onaran, 2016](#)). By conducting country specific estimations, we analyse how institutional differences in industrial relations, as well as social security and welfare regimes affect the wage share. Our findings indicate that technological change had an impact, especially in Italy, the U.S., but the effects are not robust with respect to the use of different specifications and the labour share in most countries appears to be driven by variables reflecting the bargaining power of labour such as union density, adjusted bargaining coverage and government spending. We find that globalisation had a strong impact on the labour share in all countries. In Germany, and to a lesser extent in the UK, the effect is due to outward

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<sup>1</sup> Greenwich Papers in Political Economy and non-technical Policy Briefs and Press Release based on the research project can be found here: <http://www.gre.ac.uk/business/research/centres/gperc/researchproj/research-projects-by-title>.

FDI and intermediate import penetration which reflects the impact of international outsourcing practices. Different institutional variables appear to be relevant for each country. Germany exhibits the most robust positive effect of union density on the wage share. Conversely, collective bargaining coverage, together with social government spending, plays a more important role in France, the UK and the U.S. Financialisation had the most pronounced effect in the UK and the U.S., while it appears to be also relevant in Germany. There is also evidence of a negative effect of personal income inequality on the wage share in Germany, the UK and the US.

Next we focus on findings based on sectoral data for a group of 14 OECD countries (Guschanski and Onaran, 2017a).<sup>2</sup> The first novelty is that we use more detailed measures of globalisation and bargaining power compared to previous research. Specifically, the use of input-output tables and industry-level labour market institutions allows us to obtain detailed estimates of the effect of globalisation, in particular offshoring (import of intermediate inputs from high wage and low wage countries), and bargaining power on the labour share. The second novelty is that we distinguish between workers of different skill-groups in different industries. This enables us to derive more detailed policy suggestions, as we can distinguish between effects on the labour share of high- and low-skilled workers in manufacturing and service industries.

We find a significant positive effect of direct measures of bargaining power such as union density and minimum wages, and we also find a positive impact of indirect measures of bargaining power such as welfare state retrenchment (in particular the decline in social spending by the government). This confirms findings by previous research in political economy using country-level data (Kristal, 2010; ILO, 2011; Stockhammer, 2009, 2017) and puts them on a more solid empirical footing. We find a negative impact of offshoring, in particular from low wage countries, on the labour share in line with previous findings, albeit at a more aggregate level, for the US (Elsby, et al. 2013) and international evidence by the IMF (2017). However, in contrast to these studies, we find that this impact of globalisation on the labour share works via increasing fall-back options and thereby the bargaining power of capital. Migration, capturing the mobility of labour, does not have a significant impact on the labour share according to our findings. Furthermore, we find a negative impact of the female share in employment, consistent with evidence on the gender pay gap and weaker collective bargaining power of women, which is also highlighted in research using country-level data (Seguino and Braunstein, 2017). We also confirm a negative effect of technological change; however, only for medium-skilled workers. Therefore, technological change since the mid-1990s cannot explain the strong decline in low-skilled workers' wage share or the aggregate wage share. This contrasts with several papers in the neoclassical/ New Keynesian tradition (Karabarbounis and Neiman, 2014; Bentolila and Saint-Paul 2003; Bassanini and Manfredi, 2014). In particular, we discover that the impact of technological change in the mainstream literature (Bentolila and Saint-Paul 2003; Bassanini and Manfredi, 2014; Hutchinson and Persyn, 2012) is not robust in the post-1990s.

Our analysis of the determinants of the labour share using industry-level data for a sample of 7 emerging economies provide a very important comparison to the developed OECD countries (Guschanski and

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<sup>2</sup> Australia, Austria, Belgium, France, Finland, Germany, Ireland, Italy, Japan, the Netherlands, Spain, Sweden, the UK, the US.

Onaran (2017b).<sup>3</sup> We focus in particular on the impact of the integration of emerging economies into global value chains.

We find strong evidence that globalisation decreased the bargaining power of labour vis-à-vis capital and contributed to a decline in the wage share also in the emerging economies. Specifically, we find that integration into global value chains in the form of increased exports of intermediate goods to the advanced economies and financial globalisation rather than overall trade openness played an important role. In combination with our findings on the developed economies, this implies that globalisation affected labour adversely worldwide through an increase in the bargaining power of capital. Indeed, both sides of offshoring –the relocation of production away from advanced economies and the relocation towards emerging economies – has a negative impact on the labour share on both ends of the global value chain. We also confirm a positive impact of union density. We find that technological change or trade-induced changes in capital intensity are not the reason for a decline in the labour share in emerging economies in contrast to the mainstream literature (e.g. IMF 2017).

Finally, we focus on the effect of financialisation on the labour share using firm-level data for publicly listed non-financial companies for the period of 1995-2016 (Guschanski and Onaran, 2018). We base our analysis on a sample of advanced<sup>4</sup> and emerging/ developing economies<sup>5</sup> with a further focus on the EU15<sup>6</sup>, and for individual countries including the UK, Germany, France and Sweden. Adequate measures of financialisation are not available at the industry level. This study is the first to provide cross-country evidence on the effect of financialisation on the labour share at the firm level. Additionally, firm-level data allows to control for the impact of market concentration on the labour share. Furthermore, we can investigate the relevance of the superstar firm hypothesis for European publicly listed firms, while previous research on this hypothesis has mainly focused on the U.S. Lastly, the use of firm-level data has several further advantages over country- and industry-level data as it allows us to isolate the ‘within-firm’ change in the labour share from a change driven by a reallocation towards the so-called superstar firms with lower labour shares (and with very high productivity). Furthermore, we can more precisely control for firm-specific features.

We find a negative effect of shareholder value orientation and subsequent wage suppression on the labour share in all countries. Financialisation had a further negative impact on the labour share due to increasing financial overhead costs and subsequent increases in the mark-up in France and the UK.<sup>7</sup> Furthermore, we find some evidence for a negative impact of increased fall-back options of capital due to a decoupling of profit generation from the core business. However, this effect is only statistically significant in emerging/developing economies and insignificant in advanced countries. Our findings

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<sup>3</sup> Our analysis is the first of its kind, as previous contributions are based on aggregate country-level data or pool data for both advanced and emerging economies. In contrast, our dataset allows to provide a specific analysis relevant to the context of emerging economies (Brazil, China, India, Indonesia, Mexico, South Korea, Turkey).

<sup>4</sup> Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Japan, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States.

<sup>5</sup> Argentina, Bangladesh, Brazil, Chile, China, Colombia, Egypt, India, Republic of Korea, Malaysia, Mexico, Morocco, Nigeria, Pakistan, Peru, Saudi Arabia, Singapore, Vietnam, South Africa, Sri Lanka, Thailand, Turkey.

<sup>6</sup> Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

<sup>7</sup> Previous studies suggest that financialisation had a negative impact on the labour share due to increasing financial overhead costs and subsequent increases in the mark-up (Alvarez, 2015; Dühaupt, 2016). In contrast, such an effect is only observable in France and the UK in our analysis. This suggests that changes in the balance of power and bargaining relations within firms rather than changes in the mark-up lie at the heart of the decline in the labour share.



with respect to technology confirm that there is no negative effect (and in some cases even a positive effect) at the firm level, casting further doubt on technological change as the main factor driving the decline of the wage share in publicly listed firms. With respect to market concentration, which is emphasised by the superstar firm thesis, we find that concentration has declined in the EU15 and that concentration is not associated with declining labour shares. This is in contrast to previous research by Autor, et al., (2017) and Hutchinson and Persyn (2012). Our findings suggest that the labour share declined in highly financialised firms, and not as a result of growing superstar firms, as revenues are increasingly channelled to shareholders rather than shared with the workforce in line with their productivity.

Summing up, we find robust evidence of different measures of bargaining power on the labour share including union density, welfare state retrenchment, minimum wages, the female employment share, offshoring and financialisation. In contrast, measures accounting for technological change like capital intensity and total factor productivity were not robust: while we find some evidence for a negative impact of technological change on medium-skilled workers in advanced economies when using industry-level data, we find no effect when using firm-level data. Furthermore, we do not find a negative impact of technological change in emerging/ developing economies.<sup>8</sup> Lastly, our results indicate that the decline of the labour share in Europe is not a result of changes in market concentration due to the rise of superstar firms.

For the 14 OECD countries (Guschanski and Onaran, 2017a), changes in bargaining power explain more than half of the decline in the labour.

Our findings should be interpreted as an indication that overly mechanistic approaches to income distribution are too simplistic, and that institutional and social factors should be given more attention in deriving policy advice. Research in Political Economy has emphasised that technology must be interpreted as a factor influencing bargaining positions rather than a mechanical process determining distribution outcomes (Bhaduri, 2006; Hein, 2014, chapter 8; Marglin, 1974). Our findings suggest that workers have not benefitted as much as capital from the technological advancements in the production process due to the decline in workers' bargaining power. Similarly, capital rather than labour benefitted from the efficiency gains of international trade. This suggests that the decline in the labour share can be reverted through a change in the institutional setting defining bargaining power and is not an inevitable outcome of technological change and globalisation.

## 2 POLICY IMPLICATIONS

Our findings have important policy implications. Negative effects of openness or global integration are not an unavoidable destiny, rather an outcome of current domestic and international policies. These include damaging austerity, low wage and precarious employment practices in the name of labour market flexibility. Tackling income inequality requires a restructuring of the institutional and policy framework in which wage bargaining takes place at a level playing field where the bargaining power of labour is more in balance with that of capital.

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<sup>8</sup> This confirms previous findings of an elasticity of substitution between capital and labour that is smaller than one (Chirinko, 2008).

Specifically, our finding that integration into global value chains has a negative impact on the labour share in advanced and emerging economies implies that international coordination of labour unions and organisations could help recuperate the fall in labours' income share in the last decades. Achieving international labour standards across global value chains could be a concrete policy target in this direction to create a level playing field.

The impact of globalisation or technological change is likely to be significantly moderated and/or offset by

- stronger bargaining power of labour via an improvement in union legislation, by re-regulating the labour market, banning zero hours contracts, widening collective bargaining and ensuring an active role for the state in institution building to facilitate sectoral bargaining structures.
- increasing statutory minimum wages and put processes in place for the incremental increase of minimum wage to the level of a living wage. Expedite this process through the use of public contracts;
- improving and enforcing equal pay legislation and women's representation in collective bargaining,
- increasing the social wage via higher public spending in public services and social security, ending public sector pay freezes, restoring and strengthening the welfare state and re-orientating macroeconomic policies towards ensuring full employment in order to rebalance both power relations and the wider economy with a public investment programme centred on substantial public investment in physical investments and social infrastructure.
- enforcing pay ratios between top pay and lowest paid at companies to moderate high pay.
- Substantially shorten working time in parallel with the historical growth in productivity.
- Mitigating the impact of financialisation on the labour share via appropriately designed taxation and corporate regulation that create incentives to decrease dividend payments and share buybacks, which would not only encourage firms to invest in productive capacity rather than maximising shareholder value, but also improve income distribution; higher taxation of dividend payments and capital gains, and by prohibiting share buybacks; decoupling executives' remuneration from share prices; including representatives of employees and the wider public on company boards would further support this process.

Arguably, the recent electoral shifts ranging from Brexit to Trump to the surge of populist nationalism in continental Europe, is partly a response to increasing inequality. However, rather than the main drivers of inequality identified in our analysis, the blame is often put on migrants in populist politics as they constitute an easy target: they are visible, while socio-economic processes such as financialisation and offshoring are more elusive. Our research suggests that such populist strategies will not lead to any improvements in the labour share but might rather decrease labours bargaining power by leading to a distraction from the actual institutional factors behind the fall in the bargaining power of labour.

Lastly, our results for OECD countries suggest that a simple attempt to reduce income inequality through skill-upgrading will not work, as medium-skilled workers have experienced the strongest negative impact of technological change among all workers, although low-skilled workers experienced the strongest decline in the wage share. Similarly, in emerging economies high- and medium-skilled workers have experienced the strongest negative impact of globalisation.

We have strong empirical evidence to reject the myth that we cannot have pro-labour policies in the age of globalisation ([Tori and Onaran, 2018](#); [Onaran and Obst, 2016](#); [Obst, et al., 2017](#)). Both the UK and its trade partners in Europe as a whole are strong enough to pursue an egalitarian, equality-led growth strategy based on high road labour market policies and would benefit from a coordinated boost to the wage share. As such, the UK and other progressives in Europe could, and should, take a step forward in terms of radically reversing the fall in the wage share globally.

The strategy of an equality-led development requires labour market policies aiming at pre-distribution as well as redistribution to restore the progressivity of the taxation on income and wealth are further important to tackle inequality. Furthermore, income distribution policies need to be embedded into a broader macroeconomic and industrial policy mix targeting equality, full employment, and ecological sustainability. This requires regulating finance and implementing a public investment programme centred on substantial public investment in green physical infrastructure in renewable energy, public transport and housing and purple social infrastructure in education, child care, health and social care. Labour mobility or trade in this context is much more likely to positively contribute to the local communities, as an appropriate public infrastructure ensures that there is an adequate supply of health, education and care services and housing in a vibrant community.



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