

Прикладная эконометрика, 2021, т. 62, с. 54–65.  
Applied Econometrics, 2021, v. 62, pp. 54–65.  
DOI: 10.22394/1993-7601-2021-62-54-65

A.D. Fofack, S.D. Temkeng<sup>1</sup>

# A cross-sectoral analysis of the relation between labor productivity and labor compensation in the European Union

*The aim of this paper is to assess and compare the link between labor productivity and compensation in four industries — air transport, electronics, finance, and telecommunications — of twenty-five member states of the European Union (EU) from 2000 to 2014. The long-run and short-run dynamics of productivity and compensation are analyzed using the pooled mean group (PMG), the mean group (MG) and the dynamic fixed effects (DFE) estimators. The results confirm the existence of a gap between productivity and compensation in each of those industries as mentioned in previous studies. However, the results show that despite that gap, the link between the two variables is not broken. That is, productivity and compensation are not only linked in the long run, but they also return to their long-run equilibrium after every short-run disturbance. The econometric analysis also reveals that the relation between productivity and compensation does not follow a significantly different pattern from one industry to the other. These findings robust to alternative models, estimation techniques and across industries, suggest that there are some other cross-sectoral factors preventing productivity gains to be fully reflected on paychecks.*

**Keywords:** wage; compensation; labor productivity; labor income share.

**JEL classification:** C33; E24; E25; J3.

## 1. Introduction

Neoclassical economic theory suggests that the remuneration of employees is equal to the marginal productivity of the market-clearing employee. Consequently, assuming that higher labor productivity is fully translated into higher wages, studies on wage determination usually extend the theoretical frameworks developed by Phillips (1958) and Blachflower, Oswald (1994) as they focus attention on the mitigating effect of unemployment (Nikulin, 2015).

Contrary to this orthodox economic approach, recent trends in many industries and economies reveal that productivity and pay have steadily diverged over the past decades. Brill et al. (2017) analyze the evolution of productivity and compensation in 183 U.S. industries between 1987 and 2015 and reveal that productivity outpaces pay in 77 percent of those industries. They also reveal that the largest gap between productivity and pay is found in industries with the largest productivity gains like the Information Technology industry. Pasimeni (2018) extends the scope of the analysis

<sup>1</sup> Fofack, Achille Dargaud — Rauf Denktas University, Turkey; adfofack.irlaem@gmail.com.  
Temkeng, Serge Djoudji — University of Buea, Cameroon; sdtemkeng.irlaem@gmail.com.