

Labour Income in the Age of Internet Revolution

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Abstract: In the 21st century, the internet has become omnipresent. However, there is little investigation how the dynamics of internet expansion and labour income is connected. The focus of this paper is the relationship between internet access and labour income in Germany. Channels through which the internet affects wages are classified, and groups with positive, negative and ambiguous interdependence are derived. In the estimated model, labour income increases moderately as the response to a positive shock in the size of the internet, while jobs which are identified as “winners” experience the highest short run response and largest average increase in labour income.

Keywords: Labour Markets, Internet Effects, Wages, VAR

JEL Classification Number: J30, J31, J39, O15

1. Introduction

The internet is the preeminent technological change of the last 20 years. This paper is concerned with the following questions: What does the growth of internet and software-mediated markets imply in terms of wage trajectories? What does theory tell us about potential transmission channels? And can we form a group, based on occupations, that is most affected, both in theory and empirically?

Based on the literature findings, we formulate four main channels through which the internet can affect wages. The channel “Globalisation Reinforcement” captures the positive wage effects associated with the internet as a driver of globalisation. The “Direct channel” captures the positive wage effects that the rise of the internet has on IT-related occupations. The channel “Transparency Enhancement” captures the negative wage effects on sectors that experience higher competition and price pressure due to increased transparency. The channel “Direct Replacement” captures the negative wage effects on traditional offline business that is replaced either by online business, or because the online community provides the relevant product nowadays for free. [...] (6 pages skipped)

positively or negatively affects the wages of certain occupational groups. Based on these channels, we form three different groups of occupations (“winners”, “losers” and a residual group) and calculated their average labour income.

We investigate the joint dynamic behaviour of the three wage time series and the internet-size time series by a multivariate analysis. All in all, the empirical analysis underpins the identified channels and their mechanisms for transmitting the effects of the internet on wage trajectories of the different occupational groups. The aggregation may conceal some heterogeneity on the occupational level as Winners and Losers are affected differently, both in terms of direction and transmission channels and therefore gives incentive for further research.

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