Firm Size, Concentration And The Labor Share

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Extended Abstract

The labor share has been declining for the last 20 to 25 years in U.S. This paper investigates the effect of industrial concentration on the decline of labor share, and quantify this effect. We document two empirical facts. First, there is a positive and significant correlation between the increase in concentration, measured as the share of revenue for 4 (as well as 8, 20, and 50) largest firms in a sector, and decrease in sectoral labor share from 1997 to 2012. The decline in labor share is mainly in Transportation, retail and wholesale trade, information, and manufacturing, sectors where market shares have become more concentrated over the last two decades. On the other hand, most service sectors have experienced neither decrease in labor share nor significant increase in concentration. Data from Census of Manufactures further confirms that the negative concentration-labor share correlation exists across more disaggregated (3, 4, 5 and 6) digit sectors.

Second, in average, the labor share for large firms is lower than small firms within the same sector. In 2002, the labor share for 50 largest manufacturing firms is 67% of that for the manufacturing sector. We define the ratio of labor share for a specific set of firms to the sectoral labor share as *relative labor share* for this set of firms. The relative labor share for 50th to 100th, 101st to 150th, 151st to 200th largest firms, and 201st and smaller firms in manufacturing are 73%, 82%, 97%, and 121%, respectively. The pattern that larger firms in average have lower labor shares holds in other sectors, across different digit levels, and in various years.

We propose the following explanation: large firms have lower labor share since they use more capital intensive technologies, which is supported by firm level data which reveals that capital-labor ratio is positively and significantly correlated with firm size, measured as sales, assets, and/or employees.; Mergers & Acquisitions, due to weakening of Anti-trust laws since 1980s, transfers market share from small to large firms, increases concentration ratio, and decreases labor share. A firm dynamics model that features merger and acquisition is developed. Production technologies are endogenized,

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with more productive firms choosing more capital intensive technology. Our quantitative exercise shows that the proposed mechanism explains $30-40\%$ of the decrease in labor share from 1997 to 2012.

Monopoly power is the other reasonable channel that might generate the two empirical facts documented above. It implies that when a sector becomes concentrated, the large firms accumulate higher market share, and exerts higher monopoly power which decreases labor share. However, sectoral evidence shows that, when the concentration ratio increases in a sector, the relative labor share for large firms do not significantly decreases.

Keywords: Labor Share, Firm Size, Capital Intensity, Concentration, Mergers & Acquisitions
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