EDWARD CONARD



Macro Roundup Article

Headline: Is Software Eating the World?

Article Link: https://www.nber.org/papers/w32591

Author(s)	Sangmin Aum and Yongseok Shin
Publication	National Bureau of Economic Research
Publication Date	June 25, 2024

Tweet: Analysis of firm and establishment-level data from Korea shows that software and labor are substitutes and that the rise of software accounts for two-thirds of the decline in Korean labor share of income between 1990 and 2018. @NBERpubs

Summary: When explaining the declining labor income share in advanced economies, the macro literature finds that the elasticity of substitution between capital and labor is greater than one. However, the vast majority of micro-level estimates shows that capital and labor are complements (elasticity less than one). Using firm- and establishment-level data from Korea, we divide capital into equipment and software, as they may interact with labor in different ways. Our estimation shows that equipment and labor are complements (elasticity 0.6), consistent with other micro-level estimates, but software and labor are substitutes (1.6), a novel finding that helps reconcile the macro vs. micro-literature elasticity discord. In addition, production reallocates toward firms that use software more intensively, as they become effectively more productive. Because in the data these firms have higher markups and lower labor shares, the reallocation further raises the aggregate markup and reduces the aggregate labor share.

Related Articles: Perspectives on the Labor Share and Automation and Rent Dissipation: Implications for Wages, Inequality, and Productivity and The Unexpected Compression: Competition at Work in the Low Wage Labor Market

Primary Topic: Investment

Topics: Academic paper, Database, Important!, Investment, Productivity, Wages/Income, Weekly, Workforce

PDF File URL: 'https://www.edwardconard.com/wp-content/uploads/2024/06/is-software-eating-the-world-national-bureau-of-economic-research-2024-06-25.pdf

Permalink: <a href="https://www.edwardconard.com/macro-roundup/analysis-of-firm-and-establishment-level-data-from-korea-shows-that-software-and-labor-are-substitutes-and-that-the-rise-of-software-accounts-for-two-thirds-of-the-decline-in-korean-labor-share-of-inc?view=detail

Featured Image Link: https://www.edwardconard.com/wp-content/uploads/2024/06/21402-is-software-eating-the-world-featured-thumbnail-image.png