

The Great Polarization Economics, Institutions and Policies in the Age of Inequality

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## Labor Share, Technology and Falling Demand for High Skill Workers. Marx and Acemoglu on Induced Innovations

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## <u>Abstract</u>

Until not too long ago, international trade and technological change were considered two possible explanations of increased income inequality in the US, and, of the two, the latter was considered the more significant culprit. The main driver of the trend in income inequality was thought to be increased earnings inequality, which was in turn explained by an acceleration in the skill bias of innovations. However, little consensus exists on these views today. As wage inequality stopped increasing attention has shifted onto the falling labor share as the new driver of income inequality, while the unexplained deceleration of demand for high skills raised questions about the skill bias in technological change. These recent changes reopen debate on "big picture" questions about the causes of the increase in income inequality, and why technology is no longer skill enhancing. The contribution of this paper is to show that the replacement of skills (deskilling) by technology can be a composite effect resulting from the reduced demand for high skill workers just as innovations augment the efficiency with which they help expand low skill employment. Higher productivity raises demand for high skill workers only when high and low skills are alternative factors, but the opposite is true when high skill services enter as overhead in low skill production because then demand for the former derives from the size of the latter. To show this the paper uses a modeling approach that focuses on organization of work and its transformation rather than the more traditional methodology of aggregate production functions where high and low skill workers enter as alternative factors. The argument suggests how the two current leading explanations of the downward trend of labor share - focusing, respectively, on technology and diminished power of workers under globalization - can be connected.