Technological Change and Wage Inequality in the Increase of Service Economy

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Abstract
In some advanced countries wage inequalities between skilled and unskilled labor have increased. Especially, the college premium in the US has risen shapely with an increasing supply of college graduates in 1990’s. This is called a “wage premium puzzle.” To reconcile a rise in a factor price with increasing its supply, a huge increase in the demand is required. Although many theories have been put forward, the skill biased technical change or STBC has received considerable interests. However, the most European countries (and Japan) did not experience an increase in wage inequality but saw a substantial rise in unemployment. Although technology or supply side is crucial in determining the long-run wage inequalities, the demand-side plays an important role in the factor price dynamics in the short- or medium-run. Looking at the fact from a different point of view, this paper considers the skill premium as the sector premium. Increased income has expanded the service sector more than the manufacturing sector. The service sector, especially the financial service, needs more skilled labor than the manufacturing sector does. If the economic growth is driven by the technical progress in the manufacturing like in the early stage of economic development, then one does not see any skill premium puzzle. If, however, the unbiased or service-biased technological advance takes place, then the skill premium puzzle will occur. In addition, our analysis gives an explanation that the within group wage inequality is followed by the between group equality.

Keywords: Stone-Gary utility, Baumol’s Hypothesis, Wage Inequality, Technical Change