

Quantitative Analysis of Industrial Structural Changes and Inequality: A Study on the Transition of Income Inequality in OECD Countries since 1970s

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Abstract

Kuznets' inverted U-hypothesis is one of the most fundamental arguments related to the relationship between income distribution and economic development. On the other hand, from the late 1970s, mainly in developed countries, there was a tendency contradictory to the Kuznets hypothesis described above that income inequality starts to rise despite near completion of industrialization it was. Therefore, the necessity of a new theory different from the Kuznets hypothesis was raised, and a lot of economists discussed it (e.g., Harrison and Bluestone 1988; Tribble 1996). However, Kwon (2016) insisted, when applied the Kuznets Hypothesis, it could explain the relationship between the service-knowledge structural change in the United States in recent years and the transition of income inequality. This study focused on the industrial structural change, which is the fundamental idea of the Kuznets hypothesis, and conducted a regression analysis with the relation between structural changes occurred in developed countries and income inequality as a starting point.

In this paper, we used cross-country panel data from 13 OECD countries from 1970 to 2016. Also, we used a random effect model (REM) and a fixed effect model (FEM). Based on above data, regression equations were defined, and each equation was analyzed by a plurality of methods such as a FEM and a REM. Then selected the most appropriate method was using the Hausman test.

From the regression analysis, the Kuznets' inverted U-curve occurred between the fluctuation of income inequality and the agricultural-manufacturing structural change before 1970s. Also, the Great U-turn, which is the hypothesis that refers to events that economic inequalities expanded again occurred between income inequality and the manufacturing-service structural change from 1980s to 2000s. Kuznets curve occurred again between income inequality and the service-knowledge structural change after 2000s.

From the analysis results, we showed that not only in United States but in other developed countries, the service-knowledge structural change that had occurred in recent years could explained by the same principle as the Kuznets hypothesis. Furthermore, the reason why the expansion of income inequality in OECD countries has prolonged in recent years, by applying Tribble (1996), it was concluded that as follows. It was because the service-knowledge structural change occurred after inequality expanded by manufacturing-service structural change, also, the service-knowledge structural change could explain using the Kuznets hypothesis.

References

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