Can innovation improve income inequality? Evidence from panel data

ABSTRACT

Income inequality is a source of social instability and armed conflict, which in turn are detrimental to economic development. This study examines the role of innovation in income inequality in twenty-three developed countries, using a panel mean group estimator that takes cross-sectional dependence into consideration. Three income inequality indicators are used: the Standardized World Income Inequality Database (SWIID), the University of Texas Inequality Project (UTIP), and the Estimated Household Income Inequality (EHII). The innovation indicators are patent applications and patents granted. The empirical results based on the common correlated effect mean group (CCEMG) reveal that innovation widens income inequality. We also investigate whether the innovation–income inequality nexus is subject to a country's level of globalization and financial development. The findings suggest that the interaction terms between innovation with these two variables have positive effects on income inequality, whereas innovation failed to reduce income inequality. Globalization and financial development are found to drive income inequality. The empirical results are robust to different income inequality and innovation measures as well as estimation techniques.

Keyword: CCEMG; Cross-sectional dependence; Income inequality; Innovation; Slope heterogeneity