Piketty meets Pasinetti: On public investment and intelligent machinery

Linus Mattauch*1, David Klenert2, Joseph Stiglitz3, and Ottmar Edenhofer4

1Institute for New Economic Thinking at the Oxford Martin School, Environmental Change Institute, University of Oxford (INET Oxford) – United Kingdom
2Mercator Research Institute on Global Commons and Climate Change, Potsdam-Institute for Climate Impact Research (MCC Berlin) – Germany
3Columbia University – United States
4Mercator Research Institute on Global Commons and Climate Change, Technical University of Berlin, Potsdam-Institute on Climate Impact Research (MCC Berlin) – Germany

Abstract

Wealth inequality is currently rising in rich countries. Expectations that ever more intelligent machines might replace people’s jobs amplify the concerns about an increasingly unequal wealth distribution. We examine how capital tax-financed public investment affects the distribution of wealth when the substitutability between capital and labor changes. We consider a setting with a labor-augmenting public capital stock and distinct wealth cohorts: dynastic savers and life-cycle savers. We prove that for every elasticity of substitution greater than a threshold, there exists a capital tax rate at which the dynastic savers disappear in the long term. For every elasticity below that threshold, there exists a capital tax rate at which the life-cycle savers disappear. Below these capital tax rates, both types of households co-exist in equilibrium. Finally, we elaborate on how these results depend on the role of public investment in production.

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*Speaker