
Confronting Inequality and Technical Change in a Steady State Economy

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Résumé

Any serious attempt to imagine a future economy needs to reconcile with the pressing problem of anthropogenic climate change. It has been suggested that in order to meet the current climate targets and realign resource and energy use with the finite nature of global resources, it will be necessary to move beyond a growth based economy (Jackson, 2009). However, current understanding of steady-state economies is relatively limited with questions about the future of employment, technological change and inequality remaining unanswered (Hardt and O’Neill, 2017).

In a his comprehensive treatise on inequality in capitalist economies, Thomas Piketty (2013) argues that a recent rapid expansion of income inequality will likely be exacerbated in the future by a decrease in the growth of economic output. Piketty’s analysis has been criticised for its reliance upon the constant elasticity of substitution (CES) production function which understates the role of power in the relationship between labour and capital (Barbosa-Filho, 2016). Despite these limitations, Piketty’s conclusions still present a significant challenge to those who advocate moving beyond GDP growth as the primary indicator of economic wellbeing.

Jackson and Victor (2016) challenge Piketty’s conclusions through the development of a steady state stock-flow consistent model. Their analysis highlights the importance of the substitutability of labour and capital (σ) for Piketty’s conclusions; when σ is small, it is difficult to replace labour with capital in the production process. Under these conditions Jackson and Victor conclude that the capital share of income will not necessarily explode as Piketty predicts, even within a steady state economy. The authors conclude by suggesting that their model might be usefully extended by the introduction of a new representation of technical change which considers the evolution of σ under various economic conditions.

In this paper, we extend Jackson and Victor’s analysis by adopting a representation of technical progress which moves beyond the production function framework. This allows us to consider the implications of power dynamics within the distribution of income. Furthermore, we endogenize labour productivity growth to consider which macro-economic circumstances lead to growing inequality. These extensions to the Jackson and Victor model allow us to consider the tension between growth and inequality in a more general context, deepening our understanding of inequality in a post-growth economic future.

References:

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Mots-Clés: Inequality, Technical change, post, growth, steady state, Stock, flow consistent model, Macroeconomics, Ecological Economics