In What Condition Does '$r > g$' Lead to Endless Inegalitarian Spiral in a Stochastic Growth Model?

Hiroyuki Kato
Faculty of Management and Economics,
Kaetsu University

Abstract

We consider a stochastic growth model with sunspot shocks where firms face 'instantaneously risk-less' present prices of capital but unable to adjust the capital to the part of instantaneous changes in prices. That imperfection of the capital market enables us to justify the divergent capital processes as the equilibrium. In effect, in a Ramsey type stochastic growth model, it is shown that capital accumulates faster than national income and the share of capital in national income increases while that of labor declines, which Piketty (2013) discovered by investigating much longer periods than previously stylized facts under the condition $r > g$ (the return on capital is larger than the growth rate of national income), which Piketty claimed leads to these dynamics.

Key words; endless inegalitarian spiral, stochastic growth model, instantaneously risk-less, elasticity of substitution.