

Kantian optimization with quasi-hyperbolic discounting^{*}

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Abstract

We consider a neoclassical growth model with quasi-hyperbolic discounting under Kantian optimization: each temporal self acts in a way that they would like every future self to act. We introduce the notion of a Kantian policy as an outcome of Kantian optimization in a given class of policies. We derive and characterize a Kantian policy in the class of policies with a constant saving rate for an economy with log-utility and Cobb–Douglas production technology and an economy with isoelastic utility and linear production technology. In all cases, the Kantian saving rate is higher than the saving rate of sophisticated agents, and a Kantian path Pareto dominates a sophisticated path.

Keywords: Quasi-hyperbolic discounting; Time inconsistency; Kantian equilibrium; Sophisticated agents; Saving rate; Welfare

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