

On Sustainable Endogenous Growth under Intertemporally Dependent Preferences*

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Abstract

In this paper we study an endogenous growth model with habit-formation and address two questions that are, to the best of our knowledge, new for the sustainable endogenous growth literature: first, does the process of habit-formation in relation to the consumption of manufactured goods influence the stock of environmental capital? Second, does habit-formation affect the long-term rate of economic growth?

Using a simple structure of an endogenous growth models, we first show that there may be multiple equilibrium, not all stable. Second, we prove that the presence of habits in relation to the manufactured goods lowers the steady state level of environmental capital. However the effect on the endogenous growth rate depends on the intertemporal elasticity of consumption substitution. In particular, an increase in the strength of habits will result in a higher endogenous output growth rate if the substitution between intertemporal consumption is elastic.

On the other hand, a change in preferences towards a cleaner environment increases the steady state level of natural capital. But the presence of habits reduces the effectiveness of any public policy that is meant to increase the social value of environment in utility.

Keywords: Endogenous Growth, Sustainability, Environmental Preservation, Habit-Formation.

JEL codes: C61, D11, D90, Q21.

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