

Environmental taxes and habit formation

Carlos De Miguel and Baltasar Manzano

Universidad de Vigo and rede

Abstract

In this paper we introduce the notion of habit formation in analysing the effects of a revenue neutral green tax reform that consists of an increase in energy taxes with a simultaneous adjustment in capital taxes. A growing body of the literature has emphasised the importance of allowing for habit formation as a way of modelling time dependence in preferences, in order to improve the predictions of time-separable models. Along the lines of the Double Dividend hypothesis, we use a dynamic general equilibrium model, calibrated to the Spanish economy, to assess how the existence of habits changes the literature results on both the efficiency and the environmental dividends.

The main results of the paper are:

- Habits are crucial in order to an adequate evaluation of the costs and benefits of a green tax reform.
- A significant efficiency dividend only arises when the green tax reform is carried out through an increase in the energy consumption tax and dynamics are not taken into account.
- There is always an environmental dividend whose value depends on the valuation of the environmental problem and on the presence of habits. In this case, the transitional dynamics are not very important.