

Learning Dynamics with Irreversible Investment

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Abstract

This paper considers learning dynamics with irreversible investment decisions by a monopolistically competitive firm. It develops a model which incorporates subjective uncertainty, Bayesian updating of prior beliefs, and a regime switch with time-varying transition probabilities, and examines the joint dynamics of investment and learning. Using data on investment expenditures, capital stocks and the determinants of investment such as changes in tax policy parameters, changes in labor costs, and changes in demand and productivity, the paper identifies a quantitatively important role for changes in prior beliefs about the probability of a regime switch, and for uncertainty and learning on irreversible investment decisions.

Keywords: Irreversible investment, regime shifts, learning, subjective uncertainty

JEL Codes: E22, D92, O16, O11.