Heterogeneous Expectations and Equilibrium Learnability[1]

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Abstract

This paper investigates the stability conditions of economy under heterogeneous adaptive learning. Agents have imperfect and mutually different information sets, so that they form heterogeneous expectations with econometric models that are differently underparametrized. Under the misspecified and heterogenous learning, the economy is recognized to converge to a restricted perceptions equilibrium away from a rational expectations equilibrium. The paper finds that under the heterogenous learning, stability conditions of equilibrium become less restrictive than the conditions under homogeneous and correctly specified learning. In a basic NK model with a Taylor-typed monetary policy rule, for example, the central bank can adopt a wider range of policy coefficients to ensure the learnability of equilibrium under heterogenous learning than under homogeneous learning. In particular, if the correlation between demand and supply shocks is low, the central bank might not have to care about stability conditions to ensure the learnability.

Keywords: heterogeneous learning; restricted perceptions equilibrium; Taylor principle
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