

Heterogeneous Beliefs, Risk and Learning in a Simple Asset Pricing Model

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Trade among individuals occurs either because tastes (risk aversion) differ, endowments differ, or beliefs differ. We study a simple discounted present value asset price model where agents have heterogeneous beliefs, different risk attitudes and learning schemes. According to different risk attitudes, agents adapt their beliefs over time by choosing from different predictors or expectations functions, based upon their past performance as measured by realized profits. By using both bifurcation theory and numerical analysis, we find that the dynamics of asset pricing is affected by the relative risk attitudes of different types of investors and the external noise and learning schemes can significantly affect the dynamics. Compared with the findings of Brock and Hommes [7] on the dynamics caused by changing of the intensity of choice to switch predictors, we find that many of their insights are robust to the generalization we consider, however, the resulting dynamical behavior is considerably enriched and exhibits some significant differences.

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