Can Bubbles in Asset Markets be Explained by Heterogeneity of Beliefs?

Eizo Akiyama[1] Yukihiko Funaki[2] Ryuichiro Ishikawa[3] Yaron Lahav[4]

Charles N. Noussair[5]

Abstract

In this paper, we study the connection between expectations and pricing in asset markets using an experiment. The asset markets have the structure first studied by Smith et al. (1988). We elicit long-term beliefs from traders, and make different subsets of this belief information common knowledge, depending on the treatment. We hypothesize that making traders' beliefs common knowledge causes the beliefs to become more homogeneous. As a consequence, trading volumes and mispricing would decrease as more belief information is made public. We find that when information on beliefs is presented to traders, they tend to adjust their beliefs towards the median belief. We also find that making the median price prediction for the entire future time horizon common knowledge eliminates mispricing, even among inexperienced participants, while presenting information on short-term beliefs slightly increases mispricing. In addition, we show that mispricing is reflected in higher bid prices, and not in quantities exchanged. Finally, we show that when forming beliefs, traders also incorporate the difference between their beliefs and the median belief (i.e. their level of optimism) in addition to future prices.

[1] Department of Social Systems and Management, University of Tsukuba, Japan
[2] School of Political Science and Economics, Waseda University, Japan.
[3] School of International Liberal Studies, Waseda University, Japan.
[4] Department of Business Administration, Ben-Gurion University of the Negev, Israel.
[5] Department of Economics, University of Arizona, Tucson, AZ.