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

Yukihiko Funaki[[1]](#footnote-1) Ryuichiro Ishikawa[[2]](#footnote-2) Yaron Lahav[[3]](#footnote-3) Charles N. Noussair[[4]](#footnote-4)

# Abstract

Previous studies in experimental asset markets show constant differences between prices and values. In a typical experimental asset market, a single asset with a known expected stream of dividends is traded for a known number of periods. Although this design enables all subjects to calculate the expected value of the asset in each period, prices usually start below fundamentals, increase gradually, form a bubble and then burst towards the end of the last period.

A common explanation to the deviation of prices from fundamentals is the lack of common beliefs among subjects regarding future prices. The existence of different levels of optimists and pessimists not only drives trade, but also distort prices.

In our study, we test this explanation by forming several treatments of an experimental asset market where all traders receive information about the beliefs of others regarding future prices. In addition to the control, we conduct three treatments. In the first two, subject receive information on short term beliefs only. In the fourth treatment, subjects receive information on long term beliefs.

We show that bubbles are preserved when short term beliefs become common knowledge, but only when subjects are informed on long term beliefs, bubbles are eliminated and prices track fundamental values. Interestingly, the change in market outcome cannot be explained by change in belief formation or trade decisions.

1. Waseda University, Japan. [↑](#footnote-ref-1)
2. Waseda University, Japan. [↑](#footnote-ref-2)
3. Ben-Gurion University of the Negev, Israel. [↑](#footnote-ref-3)
4. University of Arizona, Tucson, AZ. [↑](#footnote-ref-4)