Heterogenous Beliefs and Disagreement in Financial Markets

Snehal Banerjee
University of California, San Diego
snehalb@ucsd.edu

2019 FTG Summer School

Understanding why investors disagree is crucial to understanding how financial markets function. The traditional approach assumes rational expectations (RE), where investors share a common prior over the joint distribution of payoffs and signals and, so, can only disagree if they privately observe different information. The alternative approach assumes investors have heterogenous priors, or a difference of opinions (DO), over the joint distribution of payoffs and signals. Because they have different models of the world, investors in these settings can "agree to disagree" even after observing the same information. In this lecture, I will review a subset of DO models and describe how they have been useful in explaining empirical regularities that are difficult to reconcile in the RE framework. These include over-valuation and speculative bubbles, trading volume and volatility dynamics around public announcements, and return predictability.

Readings

We will focus on the readings marked (*)

Robert J. Aumann (1976) "Agreeing to Disagree," The Annals of Statistics, Vol. 4 (6), pp.1236-1239.

(*) Edward M. Miller (1977) "Risk, Uncertainty and Divergence of Opinions," Journal of Finance, Vol. 32 (4), pp. 1151-1168.

(*) J. Michael Harrison and David M. Kreps (1978) "Speculative Investor Behavior in a Stock Market with Heterogeneous Expectations," The Quarterly Journal of Economics, Vol 92(2), pp. 323-336

Jean Tirole (1982) "On the Possibility of Speculation under Rational Expectations," *Econometrica*, Vol. 50 (5), pp. 1163-1181

Paul Milgrom and Nancy Stokey (1982) "Information, trade and common knowledge," Journal of Economic Theory, Vol. 26 (1), pp. 17-27

Eugene Kandel and Neil D. Pearson (1995) "Differential Interpretation of Public Signals and Trade in Speculative Markets," Journal of Political Economy, Vol. 103(4), pp. 831-872

José A. Scheinkman and Wei Xiong (2003) "Overconfidence and Speculative Bubbles," Journal of Political Economy, Vol. 111 (6), pp. 1183-1220

(*) Snehal Banerjee, Ron Kaniel and Ilan Kremer (2009), "Price Drift as an Outcome of Differences in Higher Order Beliefs," Review of Financial Studies, Vol. 22(9), pp. 3707-3734

(*) Snehal Banerjee and Ilan Kremer (2010), "Disagreement and Learning: Dynamic Patterns of Trade," Journal of Finance, Vol. 65(4), pp. 1269-1302.

Snehal Banerjee (2011), "Learning from Prices and the Dispersion in Beliefs," The Review of Financial Studies, Vol. 24(9), pp. 158-207.

Snehal Banerjee, Jesse Davis and Naveen Gondhi (2019), Choosing to Disagree in Financial Markets, working paper