Department of Decision Sciences

Occasional Seminar

Endogenous equilibria in liquid markets with frictions and boundedly rational agents

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Abstract

We propose a simple binary mean field game, where N boundedly rational agents may decide to trade or not a share of a risky asset in a liquid market. Agents' utility depends on returns, which are endogenously determined taking into account observed and forecasted demand and an exogenous transaction cost. The explicit dependence on past demand generates endogenous dynamics of the system. It is shown that multiple Nash equilibria may arise. We study under a rather general setting (risk attitudes, pricing rules and noises) the aggregate demand for the asset, the emerging returns and the structure of the equilibria of the asymptotic game. We prove that boom and crash cycles may arise and that transaction costs have a stabilizing effect on the market.

Working Paper: http://virgo.unive.it/wpideas/storage/2011wp7.pdf

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