
Joint Statistics Seminar

The Hong Kong University of Science and Technology

Can Big Traders Influence the Stock Market?

by

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Time: 4:00 p.m. - 5:00 p.m.

Venue: Room 3408 (Lift 17/18)

Abstract

Here we study the influence of large traders in the stock market in the presence of a fringe of marginal "noise traders". We formulate a trade model relating stock price to the demand strategies of these traders who wish to maximize their payoffs. Using the Nash equilibrium concept we compute the optimal value functions for the large traders and study the stability of the state process (log price) under equilibrium strategies of the large traders. In the process, we propose two measures. The first one is to measure the big traders' total faith on the market's valuation and the second one is to measure the big traders' interaction between themselves. We discuss what values of the measures might indicate a collusion of the big traders to corner the market for their benefit and illustrate this with numerical examples. We also illustrate, with diagrams, the historical and instantaneous correlation among the value processes for these large traders to highlight certain interesting features that influence the market.

❖ *All interested are welcome!* ❖

For details, please contact ISOM Department.