Market Microstructure and Private Information: A Study on National Stock Exchange of India

Rajesh Acharya H

This paper is an attempt to examine the impact of changes in market microstructure on stock return variances during exchange trading and nontrading hours for a sample of stocks listed in National Stock Exchange of India. The study has found that daytime return variance is higher than overnight return variance and opening return variance is higher than closing return variance. First order autocorrelations in opening returns have shown small but significant negative autocorrelations for more companies whereas closing returns have shown significant positive autocorrelation for few companies. Speed of adjustment estimated from opening returns have shown a tendency towards overreaction.

I Introduction

"Market microstructure is the study of the process and outcomes of exchanging assets under explicit trading rules" (Maureen O'Hara 1995). It deals with the effect of specific trading mechanisms on the price formation process. Interest in the field of market microstructure stems from rapid structural, technological and regulatory changes which have affected the security trading industry all over the world. Substantial increase in trading volume, competition among exchanges, regulatory changes, adoption of new technologies like internet, electronic order matching system, introduction of new financial instruments are some of the major changes that have taken place in security trading industry. Stock market crash of 1987 and increased availability of high frequency data since 1990s also increased the interest in this area. Market microstructure research provides an intellectual framework for designing and operating trading systems.

Efficient market hypothesis states that a market is efficient if it fully reflects all available information. Once information arrives, market prices of securities adjust to reflect new information immediately without bias. This eliminates the opportunity of making risk free profits for speculators after covering transaction cost. Fama (1970, 1991) argued lack of return predictability as a criterion for market efficiency. The weak form of efficiency (Fama 1970) exists if prices reflect all information in past prices. Fama (1991) changed this category to

Rajesh Acharya H, UGC Senior Research Fellow, Department of Economics, University of Hyderabad, Hyderabad 500046, India, email: rajeshacharyah@gmail.com