

**Extended Abstract**

**Earnings Quarterly Announcements and Information  
Asymmetry**

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**Introduction**

Information asymmetry is costly for the investors because it enhances the transaction costs. The finance literature considers the bid-ask spread an important component of the total transaction costs incurred by investors while dealing in securities. (Stoll 1978) The bid-ask spread emerges from the need for a supplier who stands ready in the market with his bid and ask quotes to execute any unfulfilled orders and to maintain liquidity at all times. The bid price represents the price at which the specialist offers to buy shares in the market. The ask price refers to the price at which the specialist offers to sell in the market. The difference between these two prices is called the bid-ask spread.

Venkatesh and Chiang (1986) argue that a specialist in a firm's stock may be construed as an uninformed trader who is under the risk of heavy losses to informed traders since he or she must be willing to trade at all times. Bid-ask spread is the dealer's source of revenue to offset the expected losses resulting from the trading activity of the informed traders. Hence, the bid-ask spread set by the market is an increasing function of the adverse selection problem perceived which in turn depends upon the amount of firm-specific information asymmetry in the market. One part of the spread, namely the adverse selection component, is a result of revisions made by the market maker to widen the spread subsequent to informed trades (Copeland and Galai 1983, and Glosten and Milgrom 1985).

Glosten and Harris (1988) find that the adverse selection cost of the

spread is directly related to the perceived level of information asymmetry in the capital market. Stoll (1989) provides empirical evidence that the adverse information component is around 43% of the total spread and it is an inevitable component of the spread.

This paper provides new empirical evidence on the relationships between quarterly earnings announcements, information asymmetry, in Tehran Stock Exchange. These results have implications for our understanding of how the influence of quarterly earnings announcements on stock market asymmetry.

### **Hypothesis**

Corporate disclosures aim to reduce the expectation gap between investors, to decrease the advantage from which informed investors benefit, and consequently to reduce the effects of information asymmetry on the cost of capital. This argument is based on the intuition provided by Akerlof (1970), according to whom information asymmetry generates costs by introducing adverse selection into transactions. This is likely to decrease liquidity and increase firm's cost of capital (Diamond and Verrecchia, 1991).

The following hypothesis on the base of the previous theories for investigating has been considered.

H<sub>1</sub>: The quarterly earnings announcement decreases information asymmetry.

H<sub>2</sub>: The quarterly earnings announcement with good news decreases the information asymmetry more than announcement of quarterly earning with bad news.

### **Methods**

We test the change in information asymmetry using panel data regression analyses. Then, we examine information asymmetry proxies around quarterly earnings announcements by focusing on effective bid-ask spreads. With panel data, it is possible to control for some types of omitted variables by observing changes in the dependent variable over time (in our case, we choose 21 days around the date of announcement). The models are estimated on the event period [-20, +20]. We run four separate regressions to determine whether spreads widen on any of the three days surrounding the earnings announcement date and on the event

window [-20, +20] , and whether information asymmetry increases in the same periods.

We run next model based on [-20, -2] and [+2, +20] ,and [-10, -2] and [+2, +10].

$$\begin{aligned} \text{LN}(\text{SPREAD}_{i,t}) = & \alpha_0 + \alpha_1 \text{LN}(\text{VOLUME}_{i,t}) + \alpha_2 \text{LN}(\text{PRICE}_{i,t}) + \alpha_3 \\ & \text{LN}(\text{VOLATILITY}_{i,t}) + \alpha_4 \text{LN}(\text{AV}_{i,t}) + \alpha_5 \text{LN}(\text{BV}_{i,t}) + \alpha_6 D_{i,t} + \alpha_7 I_{i,t} + \alpha_8 \\ & P_{i,t} + \alpha_9 \text{Per}_t + e_{i,t} \end{aligned}$$

Control variables are bid and ask volume, dividend declaration (D), declaration of capital increasing (I) , and portfolio declaration (P). Per<sub>t</sub> is dummy equal to 1 if the period goes from -20 to -1 and 0 otherwise.

D<sub>it</sub>: is dummy equal to 1 if the period goes from -20 to -20, dividend declaration and 0 otherwise.

I<sub>it</sub>: is dummy equal to 1 if the period goes from -20 to -20, declaration of capital increasing and 0 otherwise.

P<sub>it</sub>: is dummy equal to 1 if the period goes from -20 to -20, portfolio declaration and 0 otherwise.

To determine bad and good announcement we use the following equation.

$$\bar{g}_t = \frac{\bar{E}_t - E_{t-1}}{E_{t-1}} \quad (2)$$

$$g_{Q,t} = \frac{E_{Q,t} - E_{Q,t-1}}{E_{Q,t-1}} \quad (3)$$

$\bar{g}_t$  :the growth of predicted earnings for the year(t) related to actual earnings for the year(t-1).

$\bar{E}_t$  : predicted earnings by management for the year (t).

E<sub>t-1</sub>: Actual earnings for the year (t).

$g_{Q,t}$  : The growth of predicted earnings for quarter (Q) at year (t)

related to actual earnings for quarter (Q) at the year (t-1).

E<sub>Q,t</sub>: predicted earnings for the quarter (Q) at the year (t).

E<sub>Q,t-1</sub>: actual earning for the quarter (Q) at the year (t-1).

If the growth of quarterly earnings (Q) at year (t) is equal or more than predicted growth for the year (t), the announcement quarterly earnings is good news and otherwise is bad news.

### **Results**

Our results show the information asymmetry after the announcement of quarterly earnings. This finding is shown at the announcement with good and bad news. Although the results show that the announcement of quarterly earnings in comparison to the announcement of annual earnings does not have significance in decreasing information asymmetry, it is better to care about information content assessment at the announcement of quarterly earnings.

**Keywords:** Information Asymmetry, Bid-ask Spread, Adverse Selection, Quarterly Earnings Announcement.