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An Analysis of Corporate Insider Trading and Earnings Announcements in India

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1. Introduction

Corporate insiders have at least two major avenues to potentially influence the perceptions of investors in the market:

a) They report mandated financial statements that convey key information, including accounting earnings.

b) Corporate insiders can also trade in their own stocks and thus reveal private information.

Our objective in this paper is to examine the relation between insider trading and information released during corporate earnings announcements. We first examine insider behavior before, during and after an earnings announcement to check if insiders profit from unexpected earnings. We define unexpected earnings as the difference between quarterly earnings per share and its value from four quarters before. Then we study if the market reaction at the time of the announcement is related to insider trading and if the latter influences how markets value the other signal available, unexpected earnings.

The literature on insider trading, including papers that study both insider trading and earnings announcements, is vast. Studies involving emerging markets have been limited because of paucity of data. Large insider trading data sets for India have become available only recently. India presents a unique case where there is a long history of a large and active financial market in a developing economy. While insider trading has been hard to prosecute everywhere, India's especially lax regulatory environment has made enforcement rare.

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2. Data and Variable Definitions

We obtain data from two sources: the "financial results" pages of the website of the National Stock Exchange (NSE) and the PROWESS database of the Centre for Monitoring the Indian Economy Private Limited. The NSE website reports data on quarterly earnings announcements. Each announcement includes detailed information from quarterly financial statements, some information on ownership structure, and data on investor complaints received and disposed during the quarter. Given our objectives, we capture data on net sales, net profit/loss after tax, basic earnings per share (EPS), and the date and time of the announcement. To maximize sample size, we examine only non-consolidated financial statement data. We obtain daily stock market data, annual financial statement data, quarterly data on ownership structure, and data on insider activity from PROWESS.

Our sample period consists of seven years; it begins in the first quarter of 2008 and ends in the first quarter of 2014. Our initial sample consists of 30,877 firm-quarters for 1,606 NSE listed firms, yielding an average of close to twenty announcements per firm. We apply several filters to arrive at our final sample. Our final sample consists of 18,269 quarterly announcements by 1,398 firms, and over 30,000 insider trades from 2008-2014.

3. Findings

Our key findings are as follows. First, in India, insiders tend to reduce their trading activity in the weeks before the earnings announcement. Interestingly, we observe a sharp increase in trading during and immediately after the earnings announcement. Because insider trading law explicitly prohibits trading around earnings announcements, our evidence points to some laxity in the enforcement of the law. Note that our data comes from self-reported insider trading compliance filings, so reporting plainly illegal trades is a bit of a mystery. It suggests that agents are confident that there is no enforcement effort of any significance, or that these violations are regarded as casual jaywalking rather than as serious violations of the law.

Second, we document that insider trades predict subsequent stock returns for up to one year following the trade; that is insiders profit from their trades. Most of these profits accrue from insider sales, that is, insiders time their sales prior to declining stock prices. Additionally, the profitability of insider trades is driven primarily by trades by promoters (controlling shareholders).

Third, we find modest evidence that pre-announcement trading is in the same direction as the subsequent earnings surprises. Additionally, pre-announcement trading is positively related to earnings announcement returns. This suggests that a portion of the profits that insiders make in the year following the trade is concentrated around earnings announcements.

Fourth, we find that while insider trading during the earnings announcement is unrelated to unexpected earnings, post-announcement trading is positively related to unexpected earnings; insiders buy after good earnings announcements and vice-versa. We interpret this evidence as suggesting that Indian insiders profit by exploiting the post-earnings announcement drift (PEAD) anomaly, i.e. under-reaction to news. This finding is in contrast with evidence from US that insiders do not appear to exploit the PEAD anomaly.

Our fifth set of findings relate to how investors react to information in unexpected earnings and prior insider trades. We confirm what several prior studies have found: unexpected earnings are positively correlated with earnings announcement returns in Indian markets; i.e. positive unexpected earnings are accompanied by an increase in the stock price and vice-versa. This begs the question: when two signals, insider trades prior to the earnings announcement and the earnings announcement itself are both available to the market, how does it respond?

Corporate earnings announcements can be cheap talk: costless, i.e. no significant out of pocket costs; non-binding, i.e. strategies of firms are not restricted; and unverifiable, i.e. unverifiable to a third party (e.g. a court). When a manager can lie with impunity, it may take something else to make the announcement credible. Sometimes (see Bhattacharya and Krishnan (1999)) this additional ingredient is the market discipline imposed by an independent group of traders with access to costly private information. Trading by insiders prior to the earnings announcement can also lead to a similar outcome as their trades can help lend credibility to the subsequent announcement. In the absence of this signal from the insider's trade, the earnings announcement may not be relied upon as much.

Note that the two signals are perfect substitutes if the availability of one makes the other redundant. They are perfect complements if neither signal is useful if the other is also not available. They are independent signals if the availability of one makes no difference to how much the other is relied upon. While prior papers note that in practice we are more likely to see intermediate cases – imperfect substitutes or imperfect complements – they do not develop a way to distinguish between information substitutes and information complements, but limit themselves to documenting some information content.

Intuitively, if the reliance on one signal increases (decreases) as the other is available, the two signals are information complements (substitutes). If an insider trading ahead of news causes market participants to take the news more seriously, then we will see these two signals as information complements. If insider buying ahead of good news only means that some information in the news has leaked to the market early, and the news is weighted less, then the two signals are information substitutes. There is also the possibility that the weight on news is unaffected by prior insider trades, in which case they are independent signals. Our test results indicate that pre-announcement insider trades and earnings announcements are overall neither strong substitutes nor complements. But for the case where both signals are negative (insider sells before an unexpected negative earnings announcement), our evidence suggests they are information substitutes. So insider selling before an earnings announcement is interpreted by investors as a precursor to lower than expected earnings. This gets reflected in the price (price decreases) before the earnings announcement which results in a milder reaction after the unexpected negative earnings announcement.

4. Summary

We contribute to the literature on insider trading in two broad ways. First, we examine a hitherto unexplored market – India, and document new evidence on the profitability of insiders' trades and whether it relates to their strategic use of information about unexpected earnings. Because enforcement of insider trading law is ostensibly weak, our evidence complements prior work that focuses on legal environments where such enforcement is stronger. Second, our results on the relation between earnings announcement returns and multiple information signals, where we test for the presence of complementarity or substitutability between insider trading and unexpected earnings, suggest a more nuanced view of how investors perceive information.