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The Role of Insider Trading in the Market Reaction to News Releases: Evidence from an Emerging Market

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1. Introduction

Insider trading has long been viewed as one of the major impediments to the proper functioning of capital markets. It is alleged to be particularly severe in some emerging markets, including India. This is, in part, because governance standards remain looser in those markets. Furthermore, even if securities regulation has converged towards more stringent global norms, enforcement continues to vary across jurisdictions. Like all regulators around the world, the Securities and Exchange Board of India (SEBI) faces financial and human capital resource constraints in detecting and prosecuting cases of insider trading. One of the ways in which regulators such as SEBI attempt to police insider trading is by requiring corporate insiders (i.e., promoters and directors) to report their trades in a timely fashion. SEBI then disseminates information about those trades to the public at large. The rationale for those disclosure requirements is threefold. First, promoters necessarily have continuous access to non-public information about the firms they own and operate, and therefore have the most opportunities for insider trading. Second, it is believed that requiring insiders to disclose their trades will temper their temptation to trade on non-public information. Third, investors wish to be informed about corporate insiders' transactions in a timely fashion, should those transactions reflect the insiders' sentiment about whether the shares are under- or overvalued.

We examine whether Indian insiders report trades that precede significant material news. The primary question we seek to answer is whether promoters and directors of publicly listed Indian companies engage in insider trading in plain sight. There are reasons to expect why this would be the case. Numerous studies document patterns of informed insider trading by U.S. executives and directors. That is, some of their disclosed trades precede significant price movements in their

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own companies' stock. Insofar as enforcement by the U.S. Securities and Exchange Commission against insider trading is among the highest in the world, it is reasonable to extrapolate that Indian promoters and directors face lower penalties for insider trading. Indeed, insider trading is considered as a civil crime in India, whereas it is subject to criminal penalties in the US. So far, the largest penalty for insider trading in India has been Rupees 3 Million--most penalties being significantly smaller. Therefore, one extreme view is that Indian insiders can trade with impunity. However, using the same argument, it is possible that promoters and directors would appear not to trade in a self-serving manner. That is, if they fail to report some or most of their trades due to insufficient enforcement, then the trades that outsiders observe may seem innocuous. Said differently, reported transactions may only be the tip of the iceberg if corporate insiders can trade through other accounts. Thus, it remains an open question whether we can learn about Indian promoters and directors' propensity to engage in informed trading from their disclosed trades.

2. Institutional Background

Disclosure requirements for insider transactions date back to 1992 SEBI ([Prohibition of] Insider Trading) Regulations, 1992. In 2015, revisions were made to address some perceived inadequacies with the 1992 Regulations.[2] Under the current disclosure requirements, promoters, employees, and directors are required to report to the company the number of securities acquired or disposed of within two trading days of such transaction if the value of the securities traded over a calendar quarter aggregates to a traded value in excess of one million rupees.[3] The company then must notify the particulars of such activities to the stock exchange within two trading days of the receipt of the disclosure.

Also relevant to our study are the disclosure requirements for financial results. Those should be submitted to the stock exchange within 45 days of end of each quarter, and 60 days from the end of the financial year for the annual audited financial statements. The annual report should be submitted

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2 It should be noted, though, that our sample ends in 2014.

3 Continual Disclosures in the Reporting Requirements for transaction in Securities according to the SEBI rules:

a. Every promoter, employee and director of every company shall disclose to the company the number of such securities acquired or disposed of within two trading days of such transaction if the value of the securities traded, whether in one transaction or a series of transactions over any calendar quarter, aggregates to a traded value in excess of ten lakh rupees or such other value as may be specified;

b. Every company shall notify the particulars of such trading to the stock exchange on which the securities are listed within two trading days of receipt of the disclosure or from becoming aware of such information.

to the stock exchange within 21 working days of it being approved and adopted in the annual general meeting.

3. Analyses

Our main data source is Prowess from which we obtain detailed information on disclosed insider trades, identities of individual traders and other financial data. Our sample period goes from 2006 to 2014.

We examine the trading behavior of corporate insiders in three settings. First, we aggregate trades reported by all insiders in the same firm and the same year. We net the number of shares purchased against those sold to create a 'net purchase ratio'. The ratio measures how 'bullish' insiders are on the stock as inferred from their reported trades. We measure firm performance in two ways:

(i) We compute market-adjusted stock returns by subtracting the average return on the National Stock Exchange from that of the individual stock during the same period.

(ii) We compute changes in return on assets as the difference between operating income divided by total assets at the end and the beginning of the year.

If, collectively, promoters and directors have private information and trade on it, then the higher the ratio, the higher the firm's future performance. On average, we find that this is the case. When a firm's insiders are net sellers during a year, the average market-adjusted stock return in the following year is -6.83%. In contrast, in firm-years where insiders only buy stock, the following year's market-adjusted return is 1.80%. Interestingly, however, insiders do not appear to buy (sell) more shares before accounting performance improves (worsens). Indeed, return on assets drops by 1.02% on average when they are net sellers, and by 1.06% when they are net buyers. Hence, it is more likely that they buy relatively more (fewer) shares when their stock is undervalued (overvalued) for other reasons than near-term fundamentals.

We further split the sample based on several firm characteristics to understand where insiders' apparent information advantage may come from. First, we use firms' market capitalization and their book-to-market value of equity ratio. We find that net insider purchases predict next year's stock returns more strongly in small- and mid-size firms, and those with medium to high book-to-market ratios, i.e., firms that are more likely to be mispriced and undervalued. Second, we examine whether firms' ownership structure matters in explaining insider-trading behavior. We find that insiders' propensity to buy relatively more shares ahead of good news is driven by non-conglomerate and non-government affiliated companies. To the extent that those firms are subject to lower scrutiny (especially from the government for non-government-affiliated companies), this suggests that insiders respond to such scrutiny by trading more cautiously. Third, we find that insider trades exhibit the strongest association with future stock returns in firms with lower foreign institutional ownership and higher promoter ownership. Those are firms where information asymmetry between insiders and outsiders is likely most severe and thus outsiders attach more importance to trades of insiders in these firms as compared to other firms.

Our next set of tests looks more specifically at insider trades that may be reported during especially information-sensitive windows, namely, before earnings and merger-and-acquisition announcements. We choose earnings announcements because they are salient, anticipated events that typically convey significant news. Recent stories suggest that traders have gained insider information on major Indian corporations' earnings prior to their official release, including through private networks within online platforms such as WhatsApp.[4] We also focus on earnings releases because several jurisdictions around the world ban corporate insiders from trading in the weeks leading up to those announcements (see, e.g., Australia, Hong Kong, or the UK). Our analyses are similar to the ones described above, except that we only look at insider trades that occur between the end of the fiscal year and the announcement of the annual financial results. Several patterns emerge. First, corporate insiders are less likely to report trading during that window relative to other periods during the fiscal year. Assuming that they are not dissimulating other trades, this suggests that they refrain from trading ahead of sensitive information events. Second, we find that when insiders buy shares ahead of earnings releases, the market reacts more positively on average, but it does not react to the earnings news per se (i.e., the difference between the reported earnings and those reported the prior year), presumably because good news has already been incorporated in the price. Furthermore, this result holds for bad news (i.e., earnings decreases). One way to interpret this result is that some insiders buy shares ahead of disappointing news, and the market interprets the signal more favorably. In contrast, insiders do not appear to sell shares ahead of bad news. Lastly, when we examine M&A announcements, we find no evidence of corporate insiders of either the acquirer or the target making profitable trades shortly before the announcements.

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[4] See, e.g., https://www.reuters.com/article/us-india-whatsapp-probe/indias-sebi-asks-for-trading-data-as-it-probes-whatsapp-messages-source-idUSKBN1DL16C.

4. Takeaways

Altogether, what are the practical implications of our results? From the patterns of stock returns following insider trades, we can say that corporate insiders make, on average, profitable trades in India in plain sight. However, given the magnitude of the returns, one may be hard pressed to argue that insiders trade on material news. Furthermore, we find little evidence that they trade based on foreknowledge of imminent and sensitive information. Hence, on the surface, the SEBI regulation appears to be effective in policing promoters and directors' trading behavior.

However, significant caveats apply. We only observe trades that are reported. It may very well be that the same people, using different accounts or relatives, engage in unreported and illegal insider trading. Insider trading is notoriously hard to detect for researchers and exchange regulators. Future studies should attempt to examine trading volume in stocks and derivatives ahead of earnings releases and other sensitive information events to gauge whether insider trading is pervasive in India as many suspect and see in which types of firms it arises most systematically.