Insiders’ Other Trades

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Background

• Insider trading is prohibited in most countries
  – SEBI (Prohibition of Insider Trading) Regulations, 1992 and 2015
  – But difficult to enforce

• Strong corporate governance: deterrent to insiders trading in their own stock
Background

• Insiders have information about other firms in the same industry
  – Ben-David, Birru, and Rossi (2018)
Research Question

• Do insiders with strong corporate governance at their own firm turn to other stocks to exploit their information?
Research Question

• Do insiders with strong corporate governance at their own firm turn to other stocks to exploit their information?
  – Indian setting suitable due to weak enforcement of insider trading law. So governance as a deterrent to insider trading is more important.
Empirical Challenge

• Insiders are not required to disclose all their trades, only trades in their own stock.
  – Thus, little is known about insiders’ trades in other stocks.

• We construct a novel dataset
  – by matching reported trades by insiders to a proprietary dataset of all trades on Bombay Stock Exchange (BSE)
  – identify individual insiders and examine all their trades
Empirical Strategy

• Examine profitability of insiders’
  – Own trades
  – Related trades (trades in stocks in the same industry)
  – Unrelated trades

• Focus on purchases
  – Jeng, Metrick, and Zechauser (2003): insiders’ purchases are more likely to be driven by information
  – For other trades too selling based on information may not be possible due to short sale constraints
Empirical Strategy

• Examine profitability of trades based on
  – Industry returns
  – Firm-specific returns

• Abnormal returns
  – Based on characteristic-matched benchmarks as in Daniel, Grinblatt, Titman, and Wermers (1997)

• Governance
  – Board independence, foreign institutional ownership, non-promoter institutional ownership
Preview of Results

• Own stock purchases
  – Profitable due to firm-specific return

• Related stock purchases
  – Profitable due to industry return

• Strong governance at own firm
  – Own stock purchases less profitable
    • Firm-specific component
  – Related stock purchases more profitable
    • Industry component
Preview of Results

• Results robust to controlling for governance at other firms in which the insider trades
Contribution

• Recent literature examining insider trading from the angle of information spillover

• The study sheds light on
  – Nature of information advantage of insiders
  – Trade-off between exploiting information about own firm and information about related firms: Precision of information vs violating insider trading norms
Implications

• While governance deters from insider trading in own stock, it does not entirely prevent insiders from exploiting their information

• Opportunistic nature of insider trading

• Profitable trading in related stocks may distort the incentives of insiders
Data

• BSE trade data during the period 2009 through 2011.
  – Trade information: date, stock identifier, volume transacted, price, buy/sell, masked trading member ID (broker), masked client ID which is specific to each broker.
  – A trader is uniquely identified based on broker ID-client ID pair.
  – All trades of a given client with the same broker can be tracked over the sample period.
Data

• Filings of insider trades (under clause 13(4)) are available on BSE website.
  – Insider name, date of trade, stock identifier, volume transacted, price, broker details
  – 9,053 transactions: 6,265 purchases, 2,788 sales

• Prowess
  – Stock returns, size, book-to-market, industry, governance
Sample construction

- Approach in Khatri (2018) to match insiders to BSE trader ids (broker id-client id pair)

- Suppose insider I has bought 1,000 shares of stock S on D1
  - Case 1: Unique match: Only one trader with id XA has bought 1,000 shares in stock S on D1 => Insider I = Trader XA
  - Case 2: Multiple matches: Traders XA, YB, YC have each bought 1,000 shares of stock S on D1. But XA has been matched to insider I on Day D2.
Sample construction

• Suppose insider I has bought 1,000 shares of stock S on D1
  – Case 3: Broker match: Traders XA, YB, YC have each bought 1,000 shares of stock S on D1. No trader has been uniquely matched to insider I on any of the days. But Broker B is mentioned in the filing. Broker B is matched to Broker id X based on another transaction. => Insider I = Trader XA

• Overall, we match 76% of reported trades and 73% of insiders
# Profitability of own and related purchases

**Sample:** All purchases by insiders matched to the BSE data

**Dependent variable:** DGTW Adjusted Buy-and-Hold Returns

**Own:** Indicator variable for purchase of own firm stock

**Related:** Indicator variable for purchase of a different stock in the same industry

**S.E. in parentheses:** Clustered at stock-day level or industry-day level

<table>
<thead>
<tr>
<th></th>
<th>6-month industry return</th>
<th>6-month firm-specific return</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Own</strong></td>
<td>-0.00272</td>
<td>0.0624***</td>
</tr>
<tr>
<td></td>
<td>(0.00208)</td>
<td>(0.00820)</td>
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<tr>
<td><strong>Related</strong></td>
<td>0.00744***</td>
<td>0.0122*</td>
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<tr>
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<td>(0.00171)</td>
<td>(0.00664)</td>
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**Insider fixed effects**

|                | Yes | Yes |

**Observations**

|                | 33,823 | 33,823 |

**R-squared**

|                | 0.219 | 0.154 |
Effect of Governance

• Hypothesis
  – Strong corporate governance in own firm => Less profitable own firm trades
  – Strong corporate governance in own firm => More profitable related stock trades
Governance measures

• Board independence
  – Bebchuk and Weisbach (2010)
  – Indicator for fraction of independent members >= 50%

• Foreign Institutional Investor (FII) Ownership

• Non-Promotor Institutional Investor (NPII) Ownership
  – Both motivated based on Ferreira and Matos (2008)
  – Indicator variable if FII / NPII > 5% or 10%
### Governance: Results

**Governance**: Indicator variable for better governance at own firm

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<tr>
<td></td>
<td>Ind Board</td>
<td>FII&gt;5%</td>
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<tr>
<td>Own</td>
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<tr>
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<td>0.22</td>
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<td></td>
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<td>33,637</td>
<td>0.22</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>33,637</td>
<td>0.221</td>
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Governance-of-the-traded stock effect?

• Results so far
  – Superior governance at own firm, less profitable own firm trades and more profitable related trades
  – Is it simply the case that trades in stocks with superior governance are less profitable? (Perhaps because there is more information available about them)

• Rerun the governance analysis for a subsample where own firm governance is same as other stock governance
  – Related*Governance still profitable and significant
Conclusion

• When superior governance makes trading in own stock less attractive, insiders exploit industry component of their information by trading in related stocks
Going Forward

• Endogeneity of FII ownership?
  – Possibility: FII choose to invest in firms where informed insider trading is low
  – Solution: IV or exogenous shocks to FII ownership

• Bena, Ferreira, Matos, and Pires (2017)
  – Using MSCI index membership as an instrumental variable for FII ownership
  – Changes in MSCI index membership as a shock to FII ownership