

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
 - Dai et al (2016), Ravina and Sapienza (2010)

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?

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- 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 Zechauer (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
 - Alldredge and Cicero (2015), Mehta, Reeb, and Zhao (2015), Johansson (2017), Ben-David, Birru, and Rossi (2018)
- 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

	6-month industry return	6-month firm-specific return
Own	-0.00272 (0.00208)	0.0624*** (0.00820)
Related	0.00744*** (0.00171)	0.0122* (0.00664)
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
 - Dai et al (2016), Ravina and Sapienza (2010), Jagolinzer et al (2011)
 - 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 $\geq 50\%$
- 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

	6-month industry return			6-month firm-specific return		
	Ind Board	FII>5%	NPII>5%	Ind Board	FII>5%	NPII>5%
Own	-0.00334	-0.00354*	-0.00385*	0.0777***	0.0715***	0.0687***
Own* Governance	0.00355	0.00417	0.00393	-0.017	-0.0615***	-0.0231
Related	0.00169	0.00493***	0.00467**	0.0101	0.00718	0.00557
Related* Governance	0.0186***	0.00986***	0.00921***	0.00869	0.0184	0.0217
Governance	-0.00039	0.00605*	0.00869**	-0.0269***	-0.0394***	-0.00256
Insider fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	31,705	33,637	33,637	31,705	33,637	33,637
R-squared	0.22	0.22	0.221	0.163	0.156	0.155

Governance-of-the-traded ISB

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