INFORMED TRADING IN DARK POOLS

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What the paper is about?

- Recent surge in volumes of CN generated interest across regulators, academics and practitioners to understand CN dynamics.
  - Relatively little is known about Cnetworks

Central qn:

- Examines the presence of informed trading in Crossing Networks and its impact on the price discovery on quoting exchanges.
  - Which type of trades (generated by algo / brokerage desks / negotiated deals)?
  - And for which type of stocks?

Data

- Uses proprietary high frequency trade data (100 stocks: Jun-Dec 2009) thro’ which they can derive transaction data; broad class of trader identity, counter party and trade mechanism.
  - Most earlier studies aggregate data at daily level and data is a big plus point for this paper.
How the paper gathers evidence?

- **Metric for Informed Trading**
  - Change in Spread from t-10 to t+10; t being the trade time on CN
  - Price Impact: Amihud Illiquidity ratio per minute averaged over 10 minutes from t-10 to t and from t to t+10
  - Short term return forecasting—Predictability of future returns (15 to 120 mins) with the help of average deviation of CN traded price from the best bid n offer.

- **Presence of Informed Trading**
  - Spread changes and price impacts on quoting exchanges following trades on Crossing Networks.
    - These are higher for trades involving CN members using algo strategies to trade in illiquid stocks as opposed to trades in more liquid stocks n trades thro’ manually negotiated n brokers desk
  - Predictability of Short term returns
    - Average deviation from best bid/ask of CN transactions (of algo strategies) is vimportant factor in predicting future returns of illiquid firms
How the paper gathers evidence.....?

✧ Nature / Type of informed trading
  ✧ Are returns predictable around fundamental information release days?
    ✧ Return predictability on earnings announcement days
  ✧ CN transactions using algo strategies are not useful in predicting future returns of illiquid firms.
  ✧ Information on CN is short term in nature and more likely to be technical rather than fundamental

✧ Paper definitely adds to current literature and improves our understanding of dark pools literature.

✧ The paper conveys to
  ✧ Practitioners: Liquidity seekers of illiquid firms looking for fills from CNs may get more losses when they trade against informed traders
  ✧ Regulators: suggests that CNs helps in faster information revelation on quoting exchanges and eases their concerns on impact of undisplayed liquidity
Concerns on way of gathering evidence

- On Informed Trading metric
  - Change in spread is looked 10 minutes before CN trade to 10 minutes after CN trade
  - Not sure why the authors narrowed to 10 minutes before the trade?
  - Usually, Informed trading is proxied by Adverse Selection Spreads
    - From trade time $t$ to $t+h$ minutes ($h=5$ or any).
    - See Boehmer et al. RFS 2007; Kaniel and Lu, JB 2006; Anand et al. JFM 2005

- On predictability of short term returns
  - Use TradeImbalance (net buyer initiated) in terms of quantity or value instead or in addition to average deviation of CN price from mid quote
How to make results robust....

Other control factors in regressions that may influence level of informed trading

- In addition to volume, volatility, mkap factors: Need to include several market conditions and structural characteristics of firm
  - Tick size, institutional ownership structure etc
  - Day and hour effects as spreads / price impacts have intra-day behaviors
  - Particularly because mkap is insignificant in their regression results
  - May be absence of firm specific factors are resulting in significance of intercept and hence the evidence.

- Firm specific factors play significant role particularly for smaller / illiquid stocks while determining informed trading.

Around (instead of ON) earnings announcement days

- Informed traders act on their information at least “some” days before scheduled earnings announcement day. So, looking just on announcement day may not be enough.
- Earnings announcement might be before, during and after the trading hours of the day. Paper won’t talk about how they handled this.
Thanks