

Discussion of “Trading by Crossing” by Chan, Conrad, Hu, and Wahal

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THE 6TH ANNUAL CONFERENCE
OF ABFER

May 21 2018

Summary of the Paper

- ▷ What is (internal) crossing?
 - A trade where both counterparties are internal
 - Allow institutions to match purchases and sales without exposing these orders to an external marketplace.
 - Directly saves transaction costs as transactions take place within the firm, not on the exchange

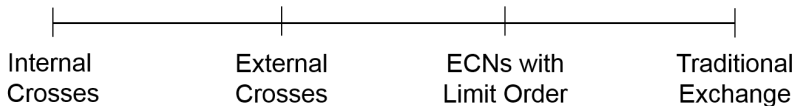
- ▷ This paper studies potential trading cost savings from internal crosses
 - from the asset management firms' perspective
 - Estimated cost savings: 1.28 billion per 11 years, 116 million per year, or 8-14 bp

Main Contribution

- ▷ Studying internal crosses is interesting
 - Complete record of trading
 - Helps us understand the role of the **informed/uninformed** trading
 - Regulatory implications: Should internal crosses be promoted or discouraged?
 - The literature on internal crosses is scarce
- ▷ The results are economically significant
 - Transaction cost of 8-14bp can be substantial for large trades
 - Transaction cost of \$5.65 billion could have been saved if internal crossing were entirely allowed.
 - Supports the economies of scale at the investment firm level (Berk and Green 2004)

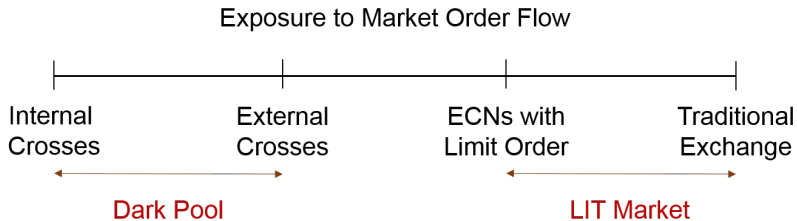
Market Structure

Exposure to Market Order Flow



- ▷ Internal crosses: prices are not affected by order flows
- ▷ External crosses

Market Structure



- ▷ Dark pool: if information on orders and quotes are private
- ▷ LIT market: if orders and quotes are public in real-time
- ▷ The difference between dark pool and lit market being widely studied

Cost of Trading (e.g., Harris 2003)

$$\begin{array}{rcc}
 \text{Transaction} & & \text{Explicit} \\
 \text{Cost} & = & \text{Cost} \\
 & & \underbrace{\hspace{10em}} \\
 & & \text{Direct cost paid to exchanges} \\
 & & \text{Commissions and taxes}
 \end{array}
 +
 \begin{array}{r}
 \text{Implicit} \\
 \text{Cost} \\
 \underbrace{\hspace{10em}} \\
 = \text{Bid-ask Spread} \\
 + \text{Market Impact Cost} \\
 + \text{Opportunity Cost}
 \end{array}$$

- ▷ Market impact cost: the cost incurred by the transaction itself by changes in prices
- ▷ Opportunity cost: the potential cost incurred when the trade is not executed

1. The Alternative to Internal Crossing

- ▶ This paper shows that there are transaction cost savings by internal crossing

1. The Alternative to Internal Crossing

- ▷ This paper shows that there are transaction cost savings by internal crossing
- ▷ But... compared to what?
- ▷ Compared to LIT market
 - Internal crossings save explicit trading costs
 - Also somewhat saves implicit trading costs
 - Bid-ask spreads
 - Impact to the price
 - Possibility of failed transaction

1. The Alternative to Internal Crossings

- ▷ What would happen when internal crosses were disallowed?
- ▷ Trade **on exchange** or in **black pool** market?
- ▷ The black pool market (external crosses/block trading)
 - May reduce explicit transaction cost, but still small
 - Trading occurs at the bid-ask midpoint
 - No impact on the market
 - Still some possibility of failed transaction but smaller than market trades
- ▷ A clear **benchmark would be helpful**

1. The Alternative to Internal Crossings

- ▷ A second issue of using the LIT market as a benchmark
- ▷ Internal crossing less likely to be driven by information
 - Asset managers with private information are more likely to trade on exchange
 - But, information based trading is likely to have higher market impact cost
- ▷ Any implications on information based trade vs. non-information based trade

2. Measuring Implicit Trading Cost

$$\text{Implicit Cost} = \text{Side} \times (\text{Execution Price} - \text{Fair Market Price})$$

- ▷ Side = 1 for buy orders, = -1 for sell orders
 - e.g., Collins and Fabozzi (1991)
- ▷ This paper uses the beginning-of-the-day as fair market price

$$\text{Implicit Cost} = \text{Side} \frac{P_t - P_0}{P_0}$$

- ▷ Compares this measure for internal crossing vs market orders

2. Main Table of this Paper

		Buys	Sells
		Implicit costs	Implicit costs
All stocks	Internal crosses	-21.63	21.63
	Market trades	19.77	32.63
	Difference	-41.40 ^{***}	-11.01 ^{***}

- ▷ Internal crosses happen at a lower price than the beginning price
- ▷ For market trades, asset managers buy at a higher price and sell at a lower price
 - Evidence that implicit trading cost is high

2. Main Table of this Paper

Panel C: negative open-to-close return

		Buys
		Implicit costs
All stocks	Internal crosses	-152.47
	Market trades	-127.87
	Difference	-24.59 ^{***}

- ▷ Largely depends on the direction of the stock price movement
- ▷ Can be contaminated by certain market orders (e.g., loss cuts)
- ▷ Negative transaction cost?
- ▷ Alternative: e.g., volume weighted average of the price?

3. Identifying of Potential Crosses

- ▷ This paper also identifies potential crosses that could have happened
- ▷ Provides three reasons why they may not have happened
 - 1) Regulatory constraints (ERISA)
 - 2) Timing mismatch
 - 3) No infrastructure to implement internal crosses
- ▷ By asset management firm characteristics (size), execution prices?!

3. Identifying of Potential Crosses

	Buys		Sells	
	Crossable	Non-crossable	Crossable	Non-crossable
Implicit cost (in basis point)	13.67 (0.12)	22.75 (0.07)	33.72 (0.12)	32.05 (0.07)
Explicit cost (in basis point)	8.18 (0.00)	10.86 (0.00)	8.33 (0.00)	10.99 (0.00)
Total cost (in basis point)	21.85 (0.12)	33.61 (0.07)	42.05 (0.12)	43.04 (0.07)

- ▷ This paper looks at the minimum of buy and sell orders happened at the same day
 - Would be biased if firms engage in intraday trading
 - Need further subsample analyses (such as bought high then sold low)

4. Social Welfare Implications

- ▷ Crossing induces more trading for asset managers but may reduce price discovery
- ▷ Table 8 of the old version had some of the welfare implications. This part is what I would like to know more.
- ▷ “ Trading by internal crossing has caused a reduction of price informativeness from trade by 3.1%. ”
 - Where the 3.1% comes from is not clear.
 - Whether internal crossing for the economy is beneficial is not clear.

Others

- ▷ Do some subsample analysis (Crisis vs. Non-crisis period)
- ▷ Trade size rather than firm size
- ▷ Stock liquidity vs. Crossing (New table 8)
 - Internal crosses reduces liquidity or happens more when trading costs are high?

Conclusion

- ▷ Extremely interesting topic but could benefit some clarifications

- ▷ Be clear about the benchmark
 - Internal crossing vs. market trades

 - Internal vs. external crossing

 - External crossing vs. market trades

- ▷ Social welfare implications