

Where there's fire there's smoke....

A recent white paper by Themis Trading, titled "[Data Theft on Wall Street](#)" has stirred up a lot of debate. The authors allege that exchanges, ECNs and MTFs are deliberately disseminating data that allows sophisticated high-frequency trading firms to take advantage of less sophisticated market participants. Is this true?

They cite two particular problems;

- When matching non-displayed orders, exchanges/ECNs/MTFs such as Nasdaq, BATS, Turquoise and Chi-x reveal information about which side of the match was passive and which was aggressive – effectively alerting participants to the possible presence of hidden resting orders on one side.
- By reporting a consistent OrderID for multiple executions and amendments of non-displayed, iceberg & pegged orders, they allow participants to identify such orders and infer information about their pricing strategy or non-displayed size.

Since its acquisition by the London Stock Exchange Group, Turquoise has sought to differentiate its pan-European Midpoint Dark Book from competitors' offerings by making it a '*safer*' place for brokers to trade institutional client orders. Accordingly, Turquoise's matching systems (both existing and new) *do not reveal* information about which side of a non-displayed execution is passive or aggressive respectively, and *nor do they reveal* if the same non-displayed passive order is executed against more than once. For our new matching system, these were deliberate design decisions which actually required specific software development – because the standard behaviour of other markets is to release such information. Why would they do that?

It's not as sinister as the authors of the Themis Trading paper would have you believe.

When exchanges first started offering electronic order entry disseminating a book feed, participants wanted to be able to identify their own orders and executions in the public data feed. This allowed them to know their queue position in the order book, and to display this on a client front-end. It allowed them to perform better transaction cost analytics – by identifying which executions on the 'tape' were theirs. It allowed them to measure the latency of the public market data against their own Execution Reports. And it allowed multiple OMS and EMS systems within the firm to identify their own orders & executions without having to feed each system with drop-copies of the order entry/execution feed.

So participants initially welcomed these new enriched market data specs because they allowed for more sophisticated order & data management, and helped drive the evolution of sophisticated execution algorithms that need information on queue position to estimate execution probability.

Turquoise Commentary

May 19th 2010



But – the authors do have a point. The specs make it relatively easy to identify iceberg/reserve orders as soon as the visible peak is first refreshed, and also to identify pegged orders as soon as they are modified by the market. And whilst Turquoise has unilaterally addressed the issues in relation to non-displayed orders (driven by the quest for a competitive advantage), a solution to improve the ‘anonymity’ of iceberg or pegged orders would require non-trivial development by vendors and brokers.

The authors call for immediate regulatory intervention. In my opinion that’s unnecessary - the exchange business is incredibly competitive, and if market participants truly want a ‘safer’ venue there will always be one or more to choose from.

We invite feedback from brokers, competitors, regulators and investors on our approach and our views.

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Update – May 21st 2010

On May 19th & 20th, European buy-side investors reacted to the Themis Trading white paper on by asking brokers to exclude the Chi-x and BATS dark books from their routing strategies. Many brokers did so, resulting in a [significant drop in volumes](#) in Chi-x and BATS midpoint order books. In contrast, the Turquoise midpoint book saw strong volume growth, as brokers directed their flow to venues trusted by their clients.

Chi-x and BATS were both quick to acknowledge the problem and to confirm to their market participants that they would mimic the Turquoise approach by the end of the week. This is a healthy evolution of market structure, and should in time increase confidence in the use of MTF dark books.

We believe that this episode demonstrates clearly that the buy-side do care about the choice of venues brokers make, and that a singular focus on dark book match rates might be superseded by a more nuanced appreciation for the quality of liquidity to be found.

We also believe that our soon-to-be-introduced functionality, designed to make our dark pool safer for institutional order flow, will help differentiate the brokers that choose to promote and use these capabilities.