

What's in Your Router?

By Joe Saluzzi

Have classic buy and hold institutional investors lost control of their orders to high-frequency traders?

This, in an era when you would think that technology should give the buy-side more control than ever?

It's no secret that Themis Trading has been highly critical of modern market structure, in particular aspects of high-frequency trading that we view as predatory.

Indeed, we see inherent conflicts of interest in so many facets of emerging market structure, from corporate ownership of exchanges to maker/taker models and order-routing incentives.

More recently we have focused on latency arbitrage and data feed leakage, two phenomena which are impacting institutional order execution.

High-frequency traders say this is the way markets work now and everyone should either adapt or die. We argue that the equity market goal of raising capital for corporations has been lost. This is evidenced, among other ways, by the lack of new listings in the market. Now a modern casino mentality and microsecond holding periods are undermining investor confidence and severely eroding the purpose of markets.

In this hyper-fragmented post-Reg NMS world, institutions have embraced suites of algorithms, as they provide a low execution rate, labor efficiency, bill-paying ability, and in general an adequate performance level.

Many funds have been able to significantly lower their explicit transaction costs because of these algos.

But what about their implicit costs? While the goal of nearly all order-execution algorithms is to minimize information leakage and find liquidity among a dizzying array of execution destinations, they vary in their ability to outrun detection by smart high-frequency trading strategies.

Many funds in fact still rely on a simple volume weighted average pricing (VWAP) strategy coupled with a participation of volume ratio.

While it is true that VWAP algos will most likely return a VWAP price at the end of the day, we question what would the price have been had the algo not been taken advantage of by the high-frequency trader's own algos. A recent report by Quantitative Services

Group found that significantly higher impact costs and trading velocity are incurred for VWAP algorithms when compared to Arrival Price algorithms. QSG suggest that HFT strategies are "materially contributing to these increased costs."

These implicit costs have been rising and hurting pension and mutual fund performance. Even the most sophisticated buy-side quantitative funds are also experiencing higher trading costs, as their models are also being spotted and taken advantage of by their high-speed, high-frequency trading cousins.

How are the high-frequency traders spotting this order flow? We believe that part of the answer lies in the "smart order router" that

many algos rely on for execution. Many of these routers have been compromised due to the economic incentives of the sponsoring broker.

In addition, the maker/taker model that most market centers employ is another conflict of interest. In a recent letter to the SEC, Morgan Stanley quantifies these routing conflicts and concluded that brokers have profited \$63 million and exchanges \$86 million per year due to their poor routing decisions at the expense of the long-term investor.

What can an institutional investor do to prevent from being gamed? We think that institutions should ask the following questions of their algo providers:

1) What is the detailed routing preference of your smart order routing service? Routers will usually

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preference the cheapest destinations first, but these destinations tend to be filled with high-frequency traders trying to sniff out activities through thousands of orders and cancellations every second.

2) Does your router send out actionable indications of interest to dark pools? Some algos will claim that these IOI's will increase your fill rate, but they also may be giving a free look on your order flow to other market participants.

3) If you make any changes to the routing preference order, will your algo rate increase? If so, your broker has been routing your order so that he can lower his cost, but not necessarily help your execution.

4) Ask your broker to provide you a daily report that details where your executions are taking place. Check to see if a majority of your executions are being executed in "toxic" pools.

5) Has your provider of transaction cost analysis demonstrated proper sophistication and knowledge of the new "wild west" that has become our markets? How granular do they get? Can they isolate the effects of predatory activity? If not, this should be addressed.

We know that there will be other layers of market structure that merit peeling back, as well as questionable trading activity and business practice, and we will continue to highlight these issues as we see them.

The "flash crash" of May 6 was not the result of a fat finger or rogue trader but the result of a market structure that has gone horribly wrong. When the market needed it, the high-frequency traders who act as market makers simply stopped supplying liquidity. The quick response to add circuit breakers is a mere Band-Aid on a wound that is still infected.

Only serious market structure reform will bring back real liquidity as well as transparency, to prevent another flash crash from happening again. Perhaps it is time for a more organized and sharing atmosphere of collaboration among traditional institutional investors.

The trading pendulum has swung from a mostly human trading model to a mostly electronic, high-frequency trading model. We are confident that unified action can help swing this pendulum back to the middle.

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