Trading in the Dark

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Introduction

On March 23rd the Canadian Securities Administrators (CSA) and the Investment Industry Regulatory Organization of Canada (IIROC) held a consultative forum on dark pools and market structure. The day long event – which followed the recent publication of industry wide commentary to CSA/IIROC consultation paper 23-404 – brought together market structure experts from various parts of the equity trading world to discuss and debate a number of issues relating to Canadian equity market structure.

In the morning eleven presenters – representing the buyside, sellside, and marketplaces – gave individual presentations after which a panel of senior regulators asked each presenter a series of questions about their comments. This was followed by a two and a half hour long roundtable debate in the afternoon. We were so impressed with both the quality and diversity of opinions expressed that we have undertaken the task of summarizing the various viewpoints.

Over the next few pages we will try to summarize the major positions on each side of the most contentious issues:

- Broker preferencing / internalising
- Sub-penny price improvement
- Pegging strategies
- Market data fees
- MOC facility

It is our intention to present each point of view fairly. On certain issues we feel strongly enough to include our own views.

Fair and Orderly Markets

Before we move to a discussion of individual issues we would like to present some high level thoughts on the role and place of regulation to better demonstrate how we have arrived at the views we express, and provide a benchmark against which to gauge past, present and future market structure and regulatory changes.

In trying to create a benchmark against which to measure regulation we are struck by the Concept Release on Equity Market Structure released by the SEC on Jan 14th, 2010. On page 10 of the 74 page paper the SEC provides a list of 5 objectives that fair and orderly markets must meet. We have taken this list and tweaked it to the following:

A fair and orderly market must ensure the following:

1) **Efficiency –** Economical and efficient execution of securities transactions

2) **Fairness –** Fair competition among brokers and also among trading venues

3) **Transparency –** Fully transparent quote and transaction data being readily available to brokers, dealers and investors

4) **Practicality –** The practicality of brokers executing investors' orders in the best market

5) **Intermediation –** The ability for investors' orders to execute in the marketplace without undue intermediation.

As we consider the various issues we will refer back to these 5 golden rules of market structure often.

Broker Preferencing

Of all the issues discussed perhaps none was as dividing as the issue of broker preferencing. Broker preferencing refers to a unique feature of Canadian markets that allows incoming orders to a trading venue to match with other orders from the same dealer ahead of similarly priced orders from other dealers, without concern for time priority. For example if BMO sends an order to sell 1000 ABX at 38.30 (the prevailing bid), on most Canadian trading venues that order will match up with a BMO bid at 38.30 even if another broker had placed a 38.30 bid into the book 20 minutes before BMO. This feature – often called 'seeking out the cross' – is currently in place on TSX, TSXV, Alpha, Pure, Omega and Triact/MatchNow. MatchNow goes one step further and allows participants to trade only with themselves. Participants can use "internalise only" to ensure that their active orders only execute against passive orders that they themselves have placed in the book. A participant sending an active order to sell 1000 ABX will not execute against the passive order marked "internalise only" by a different dealer. The only trading venue which does not provide broker preferencing in Canada is Chi-X.

Arguments for broker preferencing:

1) Broker preferencing creates an efficient way of internalising order flow and can result in savings in clearing and settlement costs for the internalising broker dealer.

2) In a multiple trading venue environment, the notion of time priority is lost and thus any impairment of time priority is irrelevant.

3) Broker preferencing is a feature offered by some marketplaces, and those who do not like such allocation methodology are welcome to place their passive flows on another venue.

4) Broker preferencing allows dealers to represent orders in an instantly executable market venue while internalising. Should preferencing be regulated away it would likely provide a catalyst for larger brokers to create in-house internalisation pools that would operate with significantly less transparency than a lit market. This would potentially create a two tiered market of those with internalisation capabilities and those without.

Arguments against broker preferencing:

1) Broker preferencing is a violation of the time/price priority system. Such a violation may result in a reduction of confidence in the fairness of our markets and discourage traders from placing visible orders into the book.

2) Internalisation allows large broker dealers to further take advantage of their dominant position. It encourages concentration generally and fosters a two tiered marketplace.

3) Game theory is forcing various market venues to offer broker preferencing or risk losing flow from the biggest dealers. As such, market forces are inadequate to deal with the issue and regulators must make a decision.

On top of these arguments one participant suggested in their comment letter that broker preferencing in lit markets is unfair and violates the fundamental principles of price time priority but such preferencing in a dark pool is acceptable as dark pools mimic the workings of the upstairs market. Logically, any limitation of dark pool preferencing would also need to be applied to upstairs internalisation.

As we consider the stated arguments against our 5 golden rules we observe the following:

1) Broker preferencing offers a marketplace internalising system that allows smaller dealers to economically and efficiently execute securities transactions.

2) There may be an issue of fair competition amongst brokers. If broker preferencing allows large dealers to attract greater flow at the expense of smaller dealers this would seem to violate our stated objective. If however, broker preferencing provides incentive for large dealers to use marketplace internalisation pools, rather than create in-house internalisation engines, such preferencing may actually create a more fair playing field than the natural alternatives.

Clearly this is a difficult issue. We can see merit in the arguments put forth by both sides. Rather than come down on either side of the issue BMO has stated that we are agnostic, but we implore the regulators to consider the incentives they are creating should they ban such preferencing allocation methodology. The regulators need to clearly define rules of any dealer driven internalisation engines ahead of time.

We do think the argument that broker preferencing should be allowed in dark markets but not in lit markets fails. If this argument were to hold then it would be reasonable for similar preferencing to be allowed for hidden orders residing on a lit market. Any difference in rules between various market types need be clearly thought out in order to avoid violating our stated objective of fair competition between trading venues.

As the regulators grapple with the issue of broker preferencing they will also need to consider the next logical step – the idea of counterparty avoidance. Several dealers have stated an interest in not trading with certain other participants – all else being equal. This counterparty avoidance may involve using a smart order router that seeks to avoid trading against particular dealers. The justification for this may be a belief that another dealer's flow is particularly predatory, and that trading with said dealer will result in the instant competition for flow on the same side from that dealer. (Some would argue that Triact/MatchNow's internalise only order type is already a variety of counterparty avoidance that has been allowed by the regulators.) This notion of attempting to trade only against natural investor flow on the contra side actually meets our final stated objective of natural investors being able to trade without undue intermediation. That said we believe the regulators will have great difficulty allowing such counterparty avoidance as it will be view as anticompetitive and arbitrary. We expect this will mushroom into a vocal and interesting debate over the coming months.

We would be very interested in hearing our readers' views on broker preferencing and internalisation.

Sub-Penny Price Improvement

Currently the rules of our marketplace – most notably UMIR – clearly state that stocks over $1 must trade in minimum ticks of 1 cent. Over the past few years, several trading venues have received exemptions to this rule allowing dark order types to trade at sub-penny increments. Not everyone is happy with these exemptions.

Arguments for sub-penny price improvement:

1) Sub-penny price improvement allows marketable orders to achieve price improvement, the benefits of which are enjoyed by the end investor.

2) The method for determining price improvements is transparent and thus open and fair to all.

3) Sub-penny price improvement incents market bound flow to consider transacting with a dark pool which makes such dark pools viable. This in turn incents large order placement on the passive side of such pools creating greater instantly achievable liquidity within the market.

Arguments against sub-penny price improvement:

1) Sub-penny price improvement in dark pools frustrates those participants placing visible limit orders into the book. These participants take the risk of visible order placement and need to be properly rewarded.

2) The price improvement is meant to compensate for jumping ahead of visible orders, but the wrong investor is rewarded. It is the person sitting in the visible book whose order does not get executed who should be rewarded, not the market bound order.

3) Sub-penny exemptions were historically granted to dark pools achieving block sized executions. Currently these exemptions are being used for very small orders.

Once again, let's consider the various arguments against our 5 rules.

1) The argument to allow sub-penny pricing in dark markets but not in lit ones fails to meet our standard of fair competition amongst trading venues. This rule clearly suggests that lit markets should be able to offer similar dark order types as are allowed by dark only venues.

2) The crux of this debate circles around the market view of economical and efficient execution of securities transactions. Those in favour of sub-penny improvement will argue that price improvement improves the economics of marketable orders. Those against will suggest that the investor on the passive side of the visible quote is being economically harmed.

At the end of the day we sympathize with the investor placing visible orders only to watch stock trade at less than a full tick better than their visible limit. We strongly believe that markets need to compensate those investors that place visible limit orders as these are the cornerstone of the price discovery mechanism. We would be more favourably disposed to sub-penny improvement if the resulting trades were large suggesting both participants had achieved some level of size discovery. Currently this is not the case. The average trade gaining price improvement is a few hundred shares.

Pegging Strategies by Marketplaces

In other jurisdictions, it is very common for trading venues to offer up pegged order types. The only venue doing so currently in Canada is Chi-X, and several of the lit markets – TSX, Pure and Omega – have argued that such order types should not be allowed.

Arguments for pegged orders:

1) Between arbitrageurs, high frequency traders and agency algorithms the majority of visible quotes on the market at any time have derived price from other orders.

2) Marketplaces offering pegging strategies will likely produce lower trade message traffic than similar strategies offered by dealers or third party vendors due to reduced order management requirements.

3) Pegging order types offer lower latency than similar strategies offered by dealers – this will decrease the ability of low latency prop traders to run strategies that trade against recurring pegged orders.

Arguments against pegged orders:

1) Pegged orders "regenerate" orders from a competitor market in essence counterfeiting the quote. This dilutes the value of the original quote.

2) Marketplace offering visible pegged orders result in a significant increase in quote message traffic that increases infrastructure costs for all market participants.

3) Marketplace pegging strategies have an unfair advantage over vendor / dealer pegging strategies due to their low latency access to both quotes and the matching engine.

4) Dealer built pegging strategies are designed to improve client execution quality but marketplace pegging order types are only looking to trap liquidity on a given trading venue.

While we share the concerns around increased market data, we would note that the TSX has seen a marked uptick in data volumes over the last few years without offering such pegged order types. We would rather see the marketplace deal with the data issue by offering reasonable disincentives to run inefficient strategies than to ban reasonable order types. (One possible solution would be to allocate the technology portion of IIROCs annual bill to dealers based on each dealer's contribution to message traffic rather than their market share). We find it very interesting that several venues that have actively courted high frequency firms would be concerned about market data and pegged strategies. The vast majority of high frequency strategies rely heavily on pegged style orders and have message to fill ratios much higher than typical liquidity seeking agency flow.

When all is said and done we believe that a marketplace pegged order allows investors to compete more effectively by avoiding undue intermediation from latency arbitrage strategies. This is consistent with our stated objectives for market structure. We believe that such strategies will be allowed to continue, and look forward to making use of an increasingly flexible and competitive basket of marketplace offerings.

Market Data Fee Caps

While market data fees were not included in the initial comment letter, several of the presenters chose to comment on this issue. The CSA has previously stated that they will consider the issue of market data fees, and we understand they have already asked each trading venue to justify any market data fees currently being charged.

Arguments for market data fee caps:

1) Dealers are captive consumers of the data provided by the various trading venue due to our best price and best execution obligations.

2) It is unreasonable for a market venue with little or no market share to force dealers to pay for their data.

3) The lack of data fee caps results in increased trading costs in Canada, making us less attractive to foreign participants.

4) Market venues that offer little value are surviving on data fees which create little incentive to create real value or close shop

Arguments against market data fee caps::

1) Market data is the property of the trading venue generating it, and thus it is their right to charge for it.

2) It is not the role of the regulators to set the commercial terms under which competitive enterprises can operate.

3) The dealers that are asking for caps on market data fees do not allow caps on the various fees they charge.

4) Imposing limits on fees based on volume is a return to the "utility model".

5) And finally one market venue suggested that because the majority of their data revenues were being paid by U.S. based firms they were "exporting value to the U.S."

We have tried to view this issue as objectively as possible, but at the end of the day we feel that forcing dealers to consume market data, without capping these fees, violates several of our core objectives. It results in less economical transacting of trade. It makes fully transparent quote and trade data less readily available to traders, investors and dealers. It lessens the practicality of brokers executing investors' orders in the best market. Finally, we take issue with the notion that selling overpriced market data to foreign institutions is "exporting value". We would argue that this actually increases the cost of transacting to potential new net investors, making the Canadian market less attractive. This most certainly violates the goals of our marketplace. We respectfully suggest that the regulators need to design a system that rewards marketplaces for their contribution to price discovery and liquidity.

Potential Changes to the MOC

It was noted by several participants of the roundtable that the TSX MOC facility is currently the single biggest dark pool of liquidity in Canada. On any given day the MOC can account for between 3 – 12% of total trade volume. While we believe the MOC facility is a big improvement over the old days of everyone trying to send the last order and 'jamming' the market in their preferred direction, we also agree with one of our competitors, who has been rather vocal of late, on the need to review and tweak the model. While some are arguing that the MOC needs to consider adding greater transparency – much like the recent changes to the NYSE MOC model – we are more interested in seeing the MOC changed to incent greater participation before 3:40 and lesser volatility when an imbalance flips. To that end we offer a few suggestions.

Under the current MOC architecture any trader working a large natural index order is not incented to place any part of that order into the MOC facility before the 3:40 imbalance publication. For example, if the expected index demand on XYZ is 1,000,000 shares and we have offered the street a great deal on the trade (perhaps a profit split) which results in orders to buy 600,000 shares, we now control the MOC on this name. We do not place anything into the MOC until the imbalance comes out. At this point there are three possible outcomes:

1) Typically the arbs who have pre-positioned the trade and the swap desks who need to execute the contra order will create a sell side imbalance. For this example let's assume a sell side imbalance of 150,000 shares. We now place 2 or more limit on close orders into the MOC with the maximum allowable lime price – 3% above the current price. As the MOC facility does not allow limit on close orders in the same direction as the imbalance we have 100% confidence that the market will not close below the last tick at 4 pm. We can then use the balance of the order to create the highest possible 4 pm tick with no risk of the stock coming back at us on the closing print. We have given the market zero information and created a situation where we have the greatest ability to impact the closing price while enduring little risk.

2) Occasionally the imbalance will come out as a sell that is greater than our total order. In this case we offset the MOC with our full order to the maximum price level. Either we get a fill in the MOC, or we receive a partial or nothing done and the stock closes 3% or more above the current price – a level at which we do not mind going short.

3) Finally the imbalance may be on the buyside. At this point we cannot place any limit on close orders. In this situation we use our buy order to push the stock higher right before the close, and then place iceberg orders in the book to ensure offsetting sell orders do not result in the stock caving in towards us. This is the most dangerous scenario.

We would argue that both scenarios 1 and 3 result in greater volatility than is necessary. (Remember that much of the trading around index changes is based on guarantees, and the broker is less incented to ensure minimal market impact. They need to be more aggressive in their trading to better 'protect the book'.) We believe that allowing a given book – either a client portfolio or a dealer inventory – the right to offset the imbalance only once would significantly increase the incentive to place part of a large order into the MOC before 3:40. This would create greater transparency for all participants and dampen overall volatility around index events. (Interestingly this was part of the original plan for the

MOC but was removed at the last hour due to dealer objection. This is why you can only place offset ting orders up to the size of the imbalance, and to offset more than the imbalance requires multiple orders.)

Some will argue that a better way to deal with the issue would be to ban the guaranteeing of closing price. While we understand the concerns around this practice we do believe this service can be extremely valuable to those indexers trying to reduce the risk around such index events. Currently most developed markets allow broker dealers to guarantee the closing price; any ban on this practice could be view negatively by global index players.

We would also suggest that the TSX allow limit on close orders in the same direction as the imbalance. To prevent traders from using these orders to 'game' the close we would suggest they can only trade at prices equal to, or better than, the 4 pm closing tick. (For example, a $10 stock being added to the index has a sell side imbalance of 50,000 shares. We would be able to enter an LOC to buy 25,000 @ $10.10. If the 4 pm tick was $10.05 my LOC order would be repriced to that level and would cede priority to any visible orders at that price or higher.) This would allow natural investors to place volatility dampening orders into the close facility even when the imbalance is clearly in the wrong direction.

The goal of the MOC facility is to ensure the greatest possible participation in a centralized clearing trade resulting in greater transparency and reduced volatility on large index trades. We believe our two suggestions – single offset of imbalance per book and LOC orders in the same direction as the imbalance – both improve the facility's ability to meet these objectives.

Conclusion

The Canadian market has undergone a massive shift in market structure over the past 2 years. Not surprisingly these shifts have resulted in vigorous debate surrounding a variety of issues. Events like the recent CSA/IIROC roundtable offer an excellent venue for all parties to come together and openly debate these issues so we can all learn and make better informed decisions on the future structure of our marketplace. We would urge the regulators to host similar events on an annual basis, at least for the next few years as market structure continues to evolve rapidly.

We have tried to outline both sides of the argument on several of the most pressing debates currently ongoing. Where we have a clear opinion on the matter we have offered it up so readers are aware of our bias. We have tried to form our opinions by relating each issue back to the high level objectives that we believe market structure should be aiming to achieve. Our end position is largely a result of these high level objectives. If we have these wrong, our arguments fail and this is why we have borrowed so heavily from the SECs excellent work in this area.

We look forward to hearing from our readers – even those of you that are not on our original distribution list. Please let us know what you think we have right and wrong. We look forward to many vigorous debates on these and other topics.

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