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2016 Canadian Market Structure Forecast

While traders and market structure "experts" spent much of their focus on evolving (disappearing) fixed income market liquidity and the potential impacts of MIFID II rules on existing business structures, 2015 also brought several significant changes to Canadian equity market structure. We witnessed the arrival of Aequitas; market wide debate around the routing of interlisted retail flow to U.S. markets; long-awaited changes to the TSX MOC facility; the introduction of an HFT friendly speed bump at Alpha; Nasdaq's purchase of Chi-X Canada (expected to close in Q1 2016); new proposed best execution rules; the meteoric rise of inverted trading venue volumes; and the introduction of Platform Traded Funds (PTF) to name just a few.

If 2015 was a busy year in Canadian equity market structure, 2016 is setting up to be even busier. Final MIFID II rules are still in the offing, and will almost certainly force changes to both buy and sell side business models, even if implementation if delayed. Closer to home, we expect to see new proposed rules around Order Protection and market data fees from the OSC later this month; CRM 2.0 takes effect this summer; the Nasdaq Chi-X deal should close in Q1; new dark pools are coming; existing markets will be as busy making tweaks as ever; and the MOC is due to see further improvements.

Without further ado, we present our list of forecasts for 2016:

1) The continued rise of inverted (taker maker pricing) model markets will result in even greater segmentation of order flow, and a significant rise in the use of the anonymous broker code (broker 1).

2) The implementation of CRM 2.0 will result in increased use of ETFs.

3) The buy side will settle on a common methodology to measure smart order router fill rates, to allow for Street-wide apples-to-apples comparisons.

4) Best execution rules will increase the use of dark pools and on-exchange hidden order types.

5) Nasdaq will push to compete with TMX in the exchange traded derivatives market.

6) New proposed Order Protection Rules (OPR), designating all markets with speed bumps and / or less than 5% market share unprotected, will be poorly received by the Street.

Before we delve into greater detail on each of these forecasts, we should take a brief look at how we fared in 2015. While we clearly missed on our projection that Canadian regulators would repeal the dark rules, and were a tad optimistic in believing final OPR rules would be published, we actually fared well on most of our calls. As predicted, the new MOC system significantly reduced index event volatility, HFT market share clearly grew after the structural changes at Alpha were introduced, CSA participation and volume share rose dramatically in the face of oncoming regulatory changes, and the Canadian regulators formally announced they would move to T+2 settlement in lockstep with the U.S. markets (Q3 2017). By our score, we end up with one big ugly miss and a number of reasonably accurate calls. Not good enough to retire on, but certainly worthy of repeating the effort again this year.

Inverted Markets and Segmentation

For followers of Canadian microstructure, the rise of inverted markets was clearly the story of 2015. In January of 2015, inverted markets accounted for ~9% of trading volumes on TSX listed securities. By December that number had risen to over 15% – driven by the new Alpha model and the addition of broker preferencing at Omega. This increase in market share, and the “first look” nature of inverted markets, resulted in institutional dealers increasing their own passive posting on such venues. While institutional dealers, competing based on execution quality, are able to post on such venues, discount retail dealers earning $6 a trade are less willing / able to do so. This has lead to increased segmentation of flow in the Canadian markets.

Segmentation of flow has long been commonplace in the U.S., where large portions of retail flow are routed to wholesalers, not available for most institutional flow. But the addition of segmentation in Canada comes with an added twist, thanks to the existence of public broker numbers on trades. The existence of broker numbers on trades – with some ~25% of volume being done under the anonymous Broker 1 tag – results in a significantly higher average level of informational value in each quote and trade. Over the past couple of years we have witnessed institutional only brokers moving most or all of their flow to Broker 1 in order to avoid gaming around their broker number. (A dealer that only trades large orders is unable to place small child orders into the lit markets without witnessing undue market impact, unless they hide the order within the noise of Broker 1).

As dealers segment flow, posting institutional orders – whichthat are typically larger and recurring – on one set of venues, such as inverteds, without also posting smaller orders on the same venues, we will undoubtedly see sophisticated prop strategies start identifying such orders, and trading along – to the detriment of liquidity consuming investors. This will force such dealers either to harmonize the routing policies of divergent business silos – which often have very different reporting structures – or grapple with the choice of moving flow to Broker 1.

Typically, brokers have been reluctant to move to Broker 1, for fear the lack of onboard advertising will limit their ability to attract natural contra side flow, and also due to investment bank concerns around the ability to demonstrate market share to potential corporate issuer clients. A large portion of buy side traders accessing Canadian markets habitually looks at past activity in a stock to determine which brokers to use on a given trade. This data typically does not attribute to broker 1 trades, so brokers using that marker are at a serious disadvantage in earning orders as a result of recent trading activity in a name.

The offset is that a broker whose number results in undue impact – due either to the nature of their flow, or the ability of others to easily identify the larger orders – is going to have a real disadvantage when trying to attract institutional flow, particularly from those clients most sensitive to trading costs and broker performance.

While those institutional only firms that have moved to Broker 1 have, anecdotally at least, experienced significant reductions in market impact costs, the offsetting loss in marketing is real and daunting. As inverted market share grows, and institutional desks feel compelled to post more flow on such venues, they will be faced with the unenviable task of determining which is the lesser of two evils. In the meantime the buy side will need to rethink the value of broker numbers in general. Since 2000 several markets, including Australia, France and Japan have all done away with such transparency. The buy side will need to weigh the value of easily identifying which brokers may have a real axe in a name they need to trade, versus the additional informational leakage that such broker numbers create in an increasingly segmented marketplace.

At the end of the day we believe the rise of inverted market share and resulting increase in segmentation will result in the buy side taking two steps. Firstly, in an effort to better understand which dealers' flow is most easily gamed, we believe that they will shift their thinking around broker routing from "how does my broker route MY orders" to "how does my broker route different types of orders.". Secondly, we ultimately believe that more dealers and buy side participants will come to the conclusion that broker numbers are harmful to their trade execution – and will increasingly trade under the anonymous marker.

If correct, the Street will need to make better use of existing IOI systems and will likely look to dealers and data providers to create improved systems for advertising real trades – not unlike the autex system commonly used in U.S. markets.

Key takeaway – The increased use of inverted markets is making larger orders more readily identifiable, and will likely lead to a growing use of Broker 1 in Canada. Buy side clients need to understand how their dealers route different types of flow to fully appreciate how identifiable their own orders are.

CRM 2.0

This summer will see the final implementation of the Client Relationship Management 2.0 (CRM 2) rules. CRM 2 is a collection of new rules aimed at ensuring clients have greater transparency around the fees they are paying and the services they are receiving. Two key areas of the rules are the most likely to result in real change to the industry and the trading landscape.

The first of these is the requirement for retail dealers to include any mark up on over the counter products on client statements. This will result in retail clients gaining transparency, for the first time, around the real price of transacting in fixed income markets. As clients, and media types, are better able to compare the real cost of trading fixed income versus the commission they pay to buy a fixed income ETF, it is widely believed that ETF product providers will be better able to make their case. One of the key advantages offered by such ETFs has always been the manner in which the mechanism effectively allows retail participants to borrow, or rent, institutional purchasing power and pay significantly lower effective spreads on fixed income products. With more transparency around such spread, this pitch should become far more powerful.

What is not clear is the impact on bond market liquidity should big dealer bond desks lose retail flows. These flows are currently very profitable for such desks and allow them to manage inventories. Should dealers lose access to much of this highly profitable flow it will almost certainly impact their ability to warehouse risk for larger institutions and curtail spending on research services.

The second noteworthy piece of CRM 2 is the disclosure of mutual fund trailer fees on client statements. Clients will become far more aware of the fees paid by mutual fund providers for distribution. The threat of this rule has already proven to be a catalyst for an increased move away from such funds, and towards fee-based broker accounts. We suspect this trend will continue to be strong throughout the year.

It should be noted that fee based accounts tend to only be offered to higher net worth clients, which puts lower net worth investors at risk. These investors are the key target of a growing number of so called "robo advisors" who offer fee-based asset allocation models that utilize low priced ETFs to obtain exposure. The rise of such advisors will be yet another catalyst for ETF growth.

The transparency around fees has also incented the mutual fund industry to squeeze infrastructure costs in an effort to become more cost competitive with ETFs. In Canada this resulted in the advent of the Platform Traded Fund (PTF). The PTF – first introduced by Invesco last October – is a mutual fund style product that utilizes portions of the equity trading infrastructure to avoid the highly expensive Fundserve system. Currently there are two competing mechanisms to manage this – one each from Aequitas Innovations and the TMX – with more likely on the way.

While the cost compression upside is very clear with the PTF vehicle, the downside is the reduction of transparency around the end investor. Currently a mutual fund provider using Fundserve to settle and distribute product gains significant information on who holds its funds. This information is used extensively for marketing and product development purposes. Users of the existing PTF mechanisms gain very little information around the end fund holder. This is a hole that PTF mechanisms will need to address to become more attractive to mutual fund companies.

Key Takeaway: CRM 2.0 will disrupt the retail fixed income market and lead to greater retail use of fixed income ETFs. This will have a knock on effect on bond desk profitability that may lead to reduction in services and capital commitment.

Key Takeaway: Increased trailer fee transparency will lead to more fee-based retail accounts and growing use of robo advisors by lower net worth clients. This will result in greater use of low priced index ETF products.

Smart Order Router Scoring Methodology

Over the past several months the Canadian market has seen increasing buy side client interest in Smart Order Router (SOR) performance metrics. Much of this uptick in interest is due to the speed bump introduction at Alpha and broker complaints that the mechanism has resulted in significant increases in quote fading. As clients have tried to compare the ability of various routers to capture quoted liquidity, we have heard a growing concern that the lack of common methodology makes comparison virtually impossible. The natural incentive for SOR providers is to use a methodology that sheds the most positive light on their products, leading to many inferior products claiming to achieve near perfect capture rates. We believe 2016 will see the buy side – with the aid of either the CSTA or BIMA (or both) – propose a single methodology for all providers to allow for a more apples-to-apples comparison of product. In an effort to get ahead of the curve on this, we would like to offer the following suggestions.

The first consideration for any reasonable methodology is to only look at orders that have a reasonable chance of experiencing quote fade. An order for less than 1% of the quote, or that only needs to target a single trading venue, has very little chance of experiencing fading, and should not be included in such analysis. Including such orders only serves to pad the stats and obfuscate the performance on tougher liquidity seeking orders. To that end, when we do internal analysis of our own router product we only include orders that are larger that the quote on any one venue (i.e., need to access multiple venues) and are greater than 50% of the NBBO size.

The second key consideration is how one handles dark fills. We believe that dark liquidity is an important part of liquidity consumption, but are weary of the potential for a small number of oversized dark fills to skew average results. As such, we suggest a proper methodology should result in two unique numbers, one showing performance including dark fills, and one that only considers fills versus the lit book.

Key Takeaway: SOR performance stats in Canada are not readily comparable due to divergent methodologies. A buy side-driven standard will force SOR providers to spend more time improving actual performance and less time designing methodologies that make them look good.

Best Ex Guidance Impacts Exchange Routers

In mid December 2015, IIROC published proposed changes to the Canadian best execution rules. The rules achieve a variety of goals including, among other things, harmonizing standards for dealers that are IIROC-registered with those who are not; formalizing best execution testing standards; effectively restricting the manner Canadian dealers utilize U.S. wholesale market makers for orders in Canadian listed names; and nudging dealers to include all markets' quotes on their retail brokerage websites. From a pure trading perspective, one of the more interesting portions of the rule was the requirement for dealers to demonstrate access to all venues that have reasonable levels of liquidity on the name being traded, regardless of whether the venue is deemed protected.

Currently many small dealers rely exclusively on exchange provided routers to manage their executions and avoid trade through violations. Such routers are typically economic, but don't always provide access to all venues, or even access away markets, in an efficient manner. In particular, some exchange routing solutions choose to ignore dark pools. Under the new guidance these routers would need to gain access to dark pools or potentially place dealers relying on them in violation of the best ex rules. As such, we suspect an increase in routers accessing these pools, which should naturally lead to greater market share for the dark venues. Further, the practice of sending away orders with a bypass market, to limit their ability to trade with dark liquidity on other venues, appears to violate the rules. Thus, exchanges currently routing in this manner will need to adjust, which should result in more dark trading on lit venues – which in turn rewards the placement of more hidden liquidity on the market. This could ultimately result in greater accessible liquidity within the system.

On top of improvements to routers, improving access to dark liquidity, the addition of one or two new dark venues, and MATCH Now^{SM}'s roll out of at the touch trading for all symbols should further increase dark participation in the markets.

Key Takeaway: The new Best Ex rules proposed by IIROC should result in a higher standard for exchange offered routing solutions, ultimately forcing exchanges to route in a manner more aligned with the client needs rather than in a manner that protects their own market share. Well done, IIROC.

<u>The Nasdaq Effect</u>

On December 8, 2015, after months of rumors, Nasdaq announced plans to purchase Chi-X Canada for a yet to be disclosed sum. We believe the purchase by Nasdaq is a three-part play.

Firstly, Nasdaq can assume the existing Chi-X equity trading business and implement its own existing technology in place at the Chi-X Global trading platform to wring out costs and increase margins.

Secondly, Nasdaq can use its existing global brand to bring listings to the Canadian market. We believe that Nasdaq, with its existing knowledge of smaller private U.S. firms, will offer up an attractive venture trading platform. By locating in Canada, Nasdaq can offer these listings without the burdensome Sarbanes-Oxley requirements. This not only allows them to list companies sooner than they might be willing to in a U.S. regulatory regime, it also creates a strong bond that will likely pay off when these companies are ready for promotion to a more senior market. We would not be surprised to see Nasdaq offer such companies the ability to trade in either Canadian or U.S. dollars.

Finally, Nasdaq currently has a robust exchange traded derivatives business in the U.S. We strongly suspect that Nasdaq will try to compete in the equity option market. Given that the TMX Group owns the existing derivative clearing house – CDCC – it will be interesting to see if Nasdaq chooses to use that mechanism and offer up fully fungible contracts, or if they try to implement their own mechanism – either with an existing clearing house like OCC, or building their own (using blockchain technology like their private equity market?). At present option clearing costs in Canada are a multiple of those in the U.S. and Europe. Such costs impact the ability of market makers to tighten spreads profitably. Should Nasdaq manage to significantly reduce the clearing fee, it could pose a real threat to the Montreal Exchange. Ironically, Chi-X Europe used this path – creating a unique cheaper clearing mechanism – to first gain traction in UK equity markets roughly a decade ago.

Key Takeaway: Nasdaq will likely use brand power and existing relationships to develop a venture market for small U.S. family business looking to gain access to public markets without the burden of Sarbanes-Oxley. This should lead to more tradable product in Canada and would be good for the Canadian Capital Markets as a whole.

Key Takeaway: A Nasdaq equity option market with cheaper clearing could result in deeper, more liquid Canadian options trading – albeit with fragmentation and potentially non-fungible competing contracts

As an interesting aside, if and when Nasdaq closes the deal to buy Chi-X Canada and migrates Chi-X over to Nasdaq technology, we will be watching carefully to see how the Nasdaq SOR is implemented. One of the more interesting takeaways of the highly emotional IEX debate down south is the allegation that the Nasdaq SOR has a speed advantage over other routers when trading its own market. Such a feature violates our understanding of Canadian regulation.

Order Protection Rules (OPR)

In May of 2014 the CSA published proposed rules around OPR. Within that proposal was a framework to set a minimum market share standard for an existing marketplace to be deemed protected. The buy side and dealer comment letters in response were largely, but not unanimously opposed to this idea. The trading venues that already surpassed the proposed 5% market share were, not surprisingly, fully in favour of such a change. Since the May 2014 publication, the OSC approved changes to the Alpha Exchange – including a speed bump for liquidity seeking orders – on the condition that the market would be unprotected. The OSC also stated at that time that it would consider making any other markets with intentional delays not protected in the future.

It is widely expected that the CSA will issue new proposals, for comment, before the end of January. In recent months regulators have informally suggested that the new rules will remove protection for both delayed markets and those with less than 5% market share. We suspect that the Street response will once again be negative. The notion of defining a market as unprotected is to insulate the Street from high costs of connecting to a market with limited or questionable liquidity. However, given that both the existing and proposed best execution rules require dealers to access such liquidity, the-non protected status will result in confusion without cost savings.

With multiple unprotected markets, participants will undoubtedly be confused by various vendors displaying differing quotes – some including non-protected markets, some not – and how different venues price mid=point fills. This confusion will not be healthy for the reputation of Canadian markets.

We believe that investment managers and dealers would be far happier with regulators taking more aggressive action on fees that are out of line – such as the data fees at several venues and in aggregate. Further, some guidelines around the ability of markets to make frequent changes to technology, which put excessive demands on the resources of market participants, would be helpful. This year we will likely see new trading engines at both Chi-X and CSE/Pure, along with new dark offerings from Instinet and Chi-X. These changes challenge the ability of managers and dealers to utilize resources for their own value add changes. Arguably changing the status of Pure to unprotected could impede their ability to force an engine change on the market, but even that is uncertain with the best ex obligations.

What remains to be seen is how regulators respond to any Street concerns, given the significant time that has already elapsed between the original proposal in 2014 and this next step.

Key Takeaway: New OPR guidance will make small markets and markets with "speed bumps" unprotected. This will not adequately address Street concerns around captive pricing of connectivity and data and will result in

confusion around the real quote and mid-point pricing. We believe the street will push back, ultimately delaying implementation.

Conclusion

2016 is shaping up to be yet another interesting year in Canadian equity market structure. New rules will change not only the way trades are executed, but also the way managers offer and distribute product, the manner that retail gains exposure to fixed income products, derivative trading mechanisms, and hopefully will create a new venue to attract smaller firms to list north of the 49^{th} parallel.

Market structure will continue to be important in 2016 and those that best understand will be best positioned moving forward.

To that end, we look forward to being your first call on Canadian market structure again in 2016.

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