CSA/ACVM Canadian Securities Administrators Autorités canadiennes en valeurs mobilières

CSA Staff Notice and Request for Comment 23-323 *Trading Fee Rebate Pilot Study*

December 18, 2018

Executive Summary

The Canadian Securities Administrators (**CSA** or **we**) are publishing for comment a proposed Trading Fee Rebate Pilot Study that would apply temporary pricing restrictions on marketplace transaction fees applicable to trading in certain securities (**Proposed Pilot**). We are publishing the Proposed Pilot for a 45-day comment period to solicit views. We are seeking comment on all issues raised in this notice, including the design of the Proposed Pilot that is contained in the Design Report at Appendix A, as well as the specific questions raised within it.

The comment period will end on February 1, 2019.

I. Introduction

The CSA has been considering a pilot study on the payment of trading fee rebates for many years in relation to our continued work to foster fair and efficient capital markets and confidence in capital markets. On May 15, 2014, we published a Notice and Request for Comment (the **2014 Notice**) that proposed amendments to National Instrument 23-101 *Trading Rules* (**NI 23-101**) in relation to the order protection rule (**OPR**).[1] On April 7, 2016, as a result of our review of OPR, we published a Notice of Approval of Amendments to NI 23-101 and Companion Policy 23-101CP (the **2016 Notice**). [2] In the 2016 Notice, we acknowledged that we had been considering a pilot study for a number of years but, due to certain risks arising from the interconnected nature of North American markets and securities that are interlisted in the United States, we decided not to move forward with a pilot study unless a similar study was undertaken in the United States.[3]

On March 14, 2018, the United States Securities and Exchange Commission (**SEC**) proposed new Rule 610T of Regulation National Market System (**NMS**) that would conduct a transaction fee pilot for NMS securities (the **Proposed SEC Transaction Fee Pilot**),[4] and, as a result, an opportunity has emerged to move forward with a Canadian pilot study.

On March 16, 2018, we published CSA Staff Notice 23-322 *Trading Fee Rebate Pilot Study*[5] to provide an update on our plans to study the impacts of transaction fees and rebates on order routing behaviour, execution quality, and market quality, and noted that we have been engaged in dialogue with SEC staff on this issue.

[1] Published at: (2014) 37 OSCB 4873.
[2] Published at: (2016) 39 OSCB 3237.
[3] Please refer to section 7 *Pilot Study on Prohibition on Payment of Rebates by Marketplaces* in (2016) 39 OSCB 3237.
[4] Published at: https://www.sec.gov/rules/proposed/2018/34-82873.pdf.
[5] Published at: http://www.osc.gov.on.ca/en/SecuritiesLaw_sn_20180316_23-322_trading-fee-rebate-pilot-study.htm.

We are publishing for comment the design and specifications of the Proposed Pilot to solicit feedback. We will continue discussions with SEC staff about coordinating the pilot studies, where possible and appropriate.

II. Background

Trading Fee Models

The "maker-taker" trading fee model originated in the United States as a method by which new marketplaces could attract orders and compete with established exchanges. The maker-taker model attracts orders through the payment of trading rebates. When a trade occurs, the participant that enters the liquidity providing order displayed in the order book (i.e. "makes" liquidity) is paid a rebate and the participant who removes that order from the order book (i.e. "takes" liquidity) is charged a fee. The fee is higher than the rebate and the difference between the two is the trading revenue earned by the marketplace.

In Canada, the maker-taker model was first introduced by the TSX in 2005 in order to compete with marketplaces in the U.S. trading interlisted securities. Since that time, and as marketplace competition emerged in Canada, the use of rebate payments to attract orders has become the standard fee model employed by Canadian marketplaces. The maker-taker model has also evolved to include an "inverted maker-taker" or "taker-maker" fee model, where the provider of liquidity pays a fee and the liquidity remover receives a rebate when a trade occurs.

Potential Issues Identified

In the 2014 Notice, we expressed our view that the payment of rebates by a marketplace is changing behaviours of marketplace participants. As elaborated below, the payment of rebates may be:

- creating conflicts of interest for dealer routing decisions that may be difficult to manage;
- contributing to increased segmentation of order flow; and
- contributing to increased intermediation on actively traded securities.

(a) Conflicts of Interest

Dealers that manage client orders make decisions regarding the marketplaces to which these orders will be routed. The payment of a rebate by a marketplace raises a potential conflict of interest when a dealer must choose between routing an order to a marketplace that pays them a rebate or to a marketplace that charges them a fee, neither of which are typically passed on to the end client. A decision to route orders based on costs may conflict with routing orders in a manner that results in the best outcome for clients. For example, the payment of a rebate may create a conflict of interest for dealers who must pursue the best execution for their clients' orders while facing potentially conflicting economic incentives to avoid fees or earn rebates. A dealer that routes to a marketplace that offers a rebate but does not offer high execution quality (i.e. orders are either less likely or take longer to execute) may ultimately provide suboptimal outcomes for clients.

This potential conflict has been the subject of academic literature including Angel, Harris, and Spatt 2010[6] and Battalio, Corwin, and Jennings 2016,[7] and was also highlighted by the International Organization of Securities Commissions (**IOSCO**) in a December 2013 publication, *"Trading Fee Models and their Impact on Trading Behaviour: Final Report"* (the **IOSCO Report**).[8] The IOSCO Report notes that

> …various jurisdictions raised concerns about the potential conflicts of interest [trading fees or trading fee models] may create – for example, by providing incentives to enter into transactions for improper purposes (such as increasing trading volumes solely for the purposes of achieving volume-based incentives) or by impacting routing decisions based on earning a rebate or discount for the participant at the expense of the quality of best execution for its client.[9]

In prohibiting the payment of marketplace rebates for a test group of securities, we believe the Proposed Pilot will provide an opportunity to understand any inherent conflicts for dealers and study both changes in order routing practices and impacts on market quality measures.

(b) Segmentation of Orders

In the context of the execution of orders, segmentation refers to the separation of orders from one class or type of market participant to other classes or types of market participants, and in the Canadian context, is often associated with the orders of retail investors. For instance, it is our understanding that a key driver for the introduction of the inverted maker-taker model was to attract orders from dealers that are more cost-sensitive to "take" fees, such as retail dealers. Retail investors may tend to demand immediacy of trade execution (i.e. use marketable orders) more frequently than other types of clients. As a result, retail dealers often "take" liquidity from order books and may choose to route orders to marketplaces with an inverted maker-taker model, where they receive a rebate rather than pay a fee.

The use of different fee models that pay rebates to different sides of a trade may be contributing to the segmentation of orders by type of client. The Proposed Pilot will study any changes in dealer routing practices based on type of client in an environment where for certain securities rebates do not play a role in influencing decisions.

(c) Increased Intermediation on Actively Traded Securities

It was argued that marketplace rebate payments have contributed to increased market participation by intermediaries that provide liquidity to Canadian marketplaces. In the 2014 Notice, we highlighted the concern that while the payment of rebates has successfully increased the level of liquidity primarily in the most liquid securities, it may have led to a situation where there is intermediation of investor orders where sufficient liquidity already exists and is least needed. The

---

[6] "*Equity Trading in the 21st Century,*" May 2010, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1584026.
[7] "*Can Brokers Have It All? On the Relation between Make-Take Fees and Limit Order Execution Quality,*" available at https://onlinelibrary.wiley.com/doi/abs/10.1111/jofi.12422.
[8] "*Trading Fee Models and their Impact on Trading Behaviour: Final Report*," available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD430.pdf.
[9] *Id.*

Proposed Pilot will study the level of intermediation on Canadian marketplaces where the payment of rebates to providers of liquidity is prohibited for certain securities.

III. Summary of the Proposed Pilot

The objective of the Proposed Pilot is to study the effects of the prohibition of rebate payments by Canadian marketplaces. In July 2018, we selected and retained three Canadian academics (the **Academics**)[10] to design the Proposed Pilot and measure the results. While greater detail can be found in the Design Report at Appendix A, a summary of the Proposed Pilot is set out below.

(a) Timing and Duration

The Proposed Pilot will run concurrently with the Proposed SEC Transaction Fee Pilot, and thus timing is dependent both on SEC approval of their proposed rules and the date of implementation. Should timing of the Proposed SEC Transaction Fee Pilot permit, the intention is to implement the Proposed Pilot on a staggered basis consisting of two stages:

1. non-interlisted stocks three to six months prior to the implementation of the Proposed SEC Transaction Fee Pilot; and
2. interlisted stocks in tandem with the implementation of the Proposed SEC Transaction Fee Pilot.

(b) Applicable Marketplaces

The Proposed Pilot will be applicable to trading rebates paid by Canadian marketplaces, both exchanges and alternative trading systems (**ATSs**), for the execution of an order with respect to certain equity securities outlined in more detail below.

(c) Proposed Pilot Securities

The Proposed Pilot will include a sample of securities selected from a list of highly liquid securities that is prepared and published by the Investment Industry Regulatory Organization of Canada (**IIROC**) [11] and a sample of actively traded, medium liquidity securities that will be constructed by the Academics. These sample securities will include both interlisted and non-interlisted common stocks.

A matched pairs design will be used to find securities that closely match on a set of characteristics such as firm size, share price, and/or trading volume, and then a treated security and a control security will be randomly selected from each pair.

We do not believe that the Proposed Pilot will harm issuers even though it may result in the elimination of trading fee rebate incentives that would otherwise be used to attract posted liquidity

---

[10] http://www.osc.gov.on.ca/en/NewsEvents_nr_20180801_csa-trading-fees-rebates-pilot-study.htm. The CSA has selected the following group of researchers with expertise in Canadian equity market structure to design and conduct the pilot study: Katya Malinova, Andriy Shkilko and Andreas Park.

[11] Please see: http://www.iiroc.ca/industry/rulebook/Pages/Highly-Liquid-Stocks.aspx.

in certain securities. While the Proposed Pilot will eliminate trading rebates in certain securities, it will not impact the application of OPR. Marketplaces that display protected orders will continue to receive trade-through protection under OPR,[12] which may continue to serve as an incentive to attract liquidity.

Furthermore, the temporary elimination of trading rebates for certain securities may make it less expensive, and consequently more attractive, to transact in those securities, which also may offset the reduced rebate incentive and attract liquidity. The cost of capital for issuers is determined by a number of factors, most of which are not impacted by secondary market trading activity.

While the Proposed Pilot is limited in scope (for instance, it does not include illiquid securities or exchange traded products), this is because a study is, by nature, limited. The exclusion of certain securities from the Proposed Pilot is in no way intended to signal that these securities will not be subject to whatever policy actions are taken as a result of the findings of the Proposed Pilot.

(d) Proposed Pilot Design

The Proposed Pilot will prohibit the payment of trading fee rebates by marketplaces with respect to trading in treated securities.[13] The Academics will conduct an empirical analysis based on market quality metrics and compare the treated securities with the control securities.
This statistical analysis will investigate the effects of the prohibition of rebates both pre- and post-implementation of the Proposed Pilot.

As the purpose of the Proposed Pilot is to study the effects of prohibiting rebates, the design relies on only this prohibition. In relation to studying conflicts of interest in order routing, we recognize that prohibiting rebates alone will not eliminate all conflicts and, in consultation with the Academics, we considered alternative approaches such as mandating symmetrical marketplace fee models.[14] Although symmetrical fee models may better control for conflicts of interest, we ultimately decided that this approach would be overly prescriptive and limit the ability of marketplaces to compete to attract orders. For this reason, we have proposed only a rebate prohibition for the treated securities.

In order to ensure that the Proposed Pilot meets the objective of providing a better understanding of the effects of the prohibition of rebate payments on Canadian marketplaces, marketplaces seeking to implement either a fee or major market structure change throughout the implementation period of the Proposed Pilot will be required to demonstrate to the CSA that such a change does not interfere with this objective. The regulators may seek public comment on these changes to aid in making such determinations.

Please refer to the attached Design Report for more details. Please also refer to GitHub for ongoing code and data analysis from the Academics as the Proposed Pilot moves forward.

[12] See https://www.osc.gov.on.ca/documents/en/Securities-Category2/sn_20160620_23-316_order-protection-rule.pdf.
[13] This will include the prohibition of rebate payments for intentional crosses.
[14] Symmetrical marketplace fee models charge the same fee to both sides of a trade.

(e) Local Matters - Implementation

In Ontario, the Proposed Pilot will be implemented by orders of the Ontario Securities Commission (the **Commission**) under s. 21(5) and s. 21.0.1 of the *Securities Act* (Ontario), as applicable for each exchange and ATS carrying on business in Ontario. Where a marketplace pays a trading fee rebate with respect to trading in a security that is included in a treatment group in the Proposed Pilot, the Commission will order that marketplace to file a fee amendment that would eliminate the rebate payment for the duration of the Proposed Pilot. The Commission will also order that for the duration of the Proposed Pilot, where a marketplace seeks any amendment to its Form 21-101 F1/F2, including the exhibits thereto, that marketplace will file submissions that satisfy the Commission that any such proposed amendments do not negatively impact the objective of the Proposed Pilot. A draft model order for both an exchange and an ATS is attached at Appendix B. Note that should we have any concerns about the Proposed Pilot following its implementation, we will immediately apply to the Commission for orders under s. 144 of the *Securities Act* (Ontario) revoking or varying the orders issued under ss. 21(5) and 21.0.1, as applicable.

In other jurisdictions, the Proposed Pilot will be implemented by orders of such jurisdictions, as applicable.

IV. Next Steps

The CSA will seek public comment on the Proposed Pilot for 45 days following the publication of this proposal, and if implemented, will monitor the Proposed Pilot on an ongoing basis and evaluate the results. Prior to implementation, the CSA will also be requesting that marketplace participants advise the CSA what actions they are taking or will take to comply with the Proposed Pilot.

We invite participants to provide input on the issues outlined in this public Consultation Paper. You may provide written comments in hard copy or electronic form. The consultation period expires **February 1, 2019.**

Please submit your comments in writing on or before **February 1, 2019**. If you are not sending your comments by email, please send a CD containing the submissions (in Microsoft Word format).

Address your submission to all of the CSA as follows:

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission, New Brunswick
Superintendent of Securities, Government of Prince Edward Island
Nova Scotia Securities Commission

Office of the Superintendent of Securities, Service NL (Newfoundland and Labrador)
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Department of Justice, Government of Nunavut

Deliver your comments **only** to the addresses below. Your comments will be distributed to the other participating CSA regulators.

The Secretary
Ontario Securities Commission
20 Queen Street West
22nd Floor
Toronto, Ontario M5H 3S8
Fax: 416-593-2318
comments@osc.gov.on.ca

M^{e} Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, rue du Square Victoria, 22^{e} étage
C.P. 246, tour de la Bourse
Montréal (Québec) H4Z 1G3
Fax : 514-864-6381
Consultation-en-cours@lautorite.qc.ca

V. Questions

Questions and comments may be referred to:

Kent Bailey Trading Specialist, Market Regulation Ontario Securities Commission kbailey@osc.gov.on.ca	Alex Petro Trading Specialist, Market Regulation Ontario Securities Commission apetro@osc.gov.on.ca
Heather Cohen Legal Counsel, Market Regulation Ontario Securities Commission hcohen@osc.gov.on.ca	Serge Boisvert Analyste en réglementation Direction des bourses et des OAR Autorité des marchés financiers serge.boisvert@lautorite.qc.ca

Roland Geiling Derivatives Product Analyst Direction des bourses et des OAR Autorité des marchés financiers roland.geiling@lautorite.qc.ca	Maxime Lévesque Analyste aux OAR, Direction des bourses et des OAR Autorité des marchés financiers Maxime.levesque@lautorite.qc.ca
Sasha Cekerevac Regulatory Analyst, Market Regulation Alberta Securities Commission sasha.cekerevac@asc.ca	Bruce Sinclair Securities Market Specialist British Columbia Securities Commission bsinclair@bcsc.bc.ca

Appendix A – Proposed Design Report -Trading Fee Rebate Pilot Study

Design Report for the CSA Pilot Study on Rebate Prohibition*

Katya Malinova Andreas Park Andriy Shkilko

First version: July 24, 2018
This version: November 21, 2018

Disclaimer: This document is subject to a request for comments and may change as the comments are addressed. The final design of the Pilot will be determined by the Canadian Securities Administrators (CSA).

*We thank the Canadian Securities Administrators, the Canadian Securities Traders Association, the Market Structure Advisory Committee of the Ontario Securities Commission, and participants at the Rotman Capital Markets Institute Panel Discussion for early input.
Katya Malinova – DeGroote School of Business, McMaster University, malinovk@mcmaster.ca
Andreas Park – Rotman School of Management, University of Toronto, Institute of Management and Innovation@UTM, andreas.park@rotman.utoronto.ca (corresponding author)
Andriy Shkilko – Lazaridis School of Business and Economics, Wilfrid Laurier University, ashkilko@wlu.ca

I. Executive Summary

The CSA has proposed a pilot study to better understand the effects of the prohibition of rebate payments by Canadian marketplaces (the Pilot). The United States Securities and Exchange Commission (SEC) has announced its intention to conduct a pilot study examining a similar set of issues (the SEC Pilot).

Rebates are often paid to market participants to attract their orders to a particular platform. The CSA has commissioned the authors of this report to develop the methodology for the Pilot, analyze the results, and complete a final research report detailing the findings of the Pilot. In this document, we propose a design and discuss the framework for the analysis of the Pilot. In particular, we cover the following issues: timing, sample construction, empirical measures, statistical tools, and anticipated challenges. We also include a list of questions for industry feedback and discuss some of the issues that have arisen in our previous discussions with the regulators and market participants.

An important feature of the Pilot is design simplicity. A complex design that tries to answer too many questions may confound the analysis and as such will be detrimental to drawing policy-relevant conclusions. Consequently, key conditions for the Pilot to be successful are as follows:

- for a group of securities selected using objective and transparent criteria (hereafter, treated securities), marketplaces are prohibited from paying fee rebates[15] to dealers, including offering discounts on liquidity removal fees if such discounts are linked to the dealers' liquidity-providing activities. For all remaining securities, the rules remain unchanged;
- the prohibition applies to all marketplaces trading equity securities;
- with respect to interlisted securities, the timing of the Pilot and the set of the Pilot securities are coordinated with the SEC;
- the Pilot matches the duration of the SEC Pilot;
- the Pilot is introduced in two stages to mitigate the effects of unexpected market-wide events that may coincide with the Pilot start date;
- in the analysis stage, a set of market quality and order routing metrics is computed using data from the Investment Industry Regulatory Organization of Canada (IIROC) Surveillance Technology Enhancement Platform (STEP) data;[16]
- a set of standard techniques is applied to examine these data; and
- the codes used in the analysis are publicly available and comments are encouraged.

The sample will be selected from corporate equity securities split into highly liquid and medium-liquid. Each treated security will be matched with a control security that has similar characteristics, i.e., firm size, share price, and trading volume. The control securities will not be treated. The sample selection will be governed exclusively by statistical considerations. We expect the sample to consist of:

[15] This will include the prohibition of rebate payments for intentional crosses.
[16] STEP offers a consolidated view of equity trading on all marketplaces.

- 50-60 highly liquid and 20-30 medium liquid interlisted securities, with an equal number of interlisted matches, and
- 60-80 highly liquid and 80-100 medium liquid non-interlisted securities, with an equal number of non-interlisted matches.

Precise quantities will be determined on the date the sample is finalized, approximately three months prior to the start of the Pilot.

In the analysis stage, we will use standard market quality metrics (e.g., quoted spreads and depths, effective and realized spreads, implementation shortfall, volatility, trade and order autocorrelation, time to execution for competitively priced limit orders, etc.). We will examine these metrics before and after rebate prohibition for the market overall and for several types of market participants separately (e.g., dealers, retail investors, institutional participants, participants using high frequency strategies, etc.). The final report will present the results with due care to preserve anonymity of the participants.

II. Details

A. Background

In its 2014 Request for Comments on Proposed Amendments to NI 23-101 Trading Rules,[17] the CSA cites several concerns regarding the maker-taker fee model. Specifically, the CSA suggests that the model may "distort transparency of the quoted spread, introduce inappropriate incentives and excessive intermediation, and create conflicts of interest" and proposes conducting a pilot study to formally examine these issues. The CSA specifically states that any pilot should "examine the impact of prohibiting the payment of rebates by marketplaces."

In proposing the Pilot design, we seek to better understand how the prohibition of rebates may affect dealers' routing practices, the level of intermediation, and standard measures of market quality. The analysis will be carried out for the market overall and for various groups of market participants separately.

In what follows, we provide a detailed description of the data, variables, and methods that will allow us to address the issues raised by the CSA. For the results to be meaningful and policy-relevant, two design features are important: sufficiently large and well-structured treatment and control samples and a staggered introduction of treatment. Furthermore, we will seek close coordination with the SEC, since trading in Canada may be affected by the final design of the SEC Pilot.

B. Merits of a Canadian Pilot

Although the U.S. and the Canadian equity markets are similar, there are several key differences that may affect dealer routing decisions. Examples include the practice of retail order internalization in the U.S. and broker-preferencing in Canada. Therefore, while we expect rebate prohibition to have a similar impact on market-wide measures of market quality in both countries,

---

[17] http://www.osc.gov.on.ca/en/SecuritiesLaw_csa_20140515_23-101_rfc-pro-amd.htm.

changes in routing practices and the extent to which different groups of market participants are affected may differ. Consequently, a Canadian pilot, in combination with sufficiently granular data, will substantially improve understanding of the existing fee system and will be necessary for a well-informed Canadian regulatory policy.

C. Required Data

The Pilot aims to examine discretionary routing practices and the impact of fees on different groups of market participants. We will use masked data from IIROC's STEP system. In the STEP data, we will define a trader ID as the combination of the dealer ID, user ID, and account type (specialist, client, inventory, etc.). Once defined, we will use trader IDs following the classification of market participants proposed by Devani, Tayal, Anderson, Zhou, Gomez, and Taylor (2014).

III. Pilot Securities and Sample Construction

A. Background

There are about 3,800 securities listed on Canadian stock exchanges, some of which are interlisted on foreign exchanges. Trading characteristics differ significantly across securities, and in constructing the sample we must ensure that such differences do not confound the results.

First, a number of securities trade almost exclusively in rebate-free environments. Examples include CSE-listed securities, as well as TSX- and TSXV-listed securities priced under $1 that trade on the TSX, TSXV, and MatchNow. Such securities will not be included in the sample.

Second, while we expect that our analysis will provide the most statistically reliable results for the highly liquid securities, we recognize that there is significant interest in examining the impact of rebate prohibition for securities with medium activity levels. Therefore, we will analyze a sample of such securities, but caution that the resulting market quality measures may be statistically noisy. We will not examine very illiquid securities as such an analysis will not yield statistically meaningful insights. We will split the securities into two subsamples: U.S.-interlisted equities and non-interlisted equities.

B. Sample Selection and Matching Criteria

The two groups of corporate equities will be further split into highly liquid and medium liquid securities. IIROC defines a security to be "highly liquid" if it trades on average at least 100 times per day and with an average trading value of at least $1,000,000 per trading day over the past month.[18] Highly liquid securities account for more than 90 percent of the TSX market capitalization and as such are reasonably representative of the wealth invested in publicly-listed Canadian corporate equities. We will define a security as "medium-liquid" if it trades on average at least 50 times a day and with an average trading value of at least $50,000 over the past month.

To select the treatment and control groups, we will use a procedure that finds stocks similar to each other based on a set of pre-defined characteristics and then randomly selects a stock to treat

[18] http://www.iiroc.ca/industry/rulebook/Pages/Highly-Liquid-Stocks.aspx

from each pair. We will use the following matching characteristics as of three months prior to the Pilot start date: listing status (single market vs. interlisted), liquidity status (highly liquid vs. medium liquid), firm size (market capitalization), price, and dollar trading volume, with the last three characteristics averaged over the month preceding the selection date. The list of Pilot securities will be made public as soon as it is finalized.

An appropriately-sized sample that is representative of the universe of Canadian publicly listed firms must include the interlisted stocks. We have submitted a comment letter to the SEC to formally request that the Pilot and the SEC Pilot are coordinated so that the interlisted stocks are treated in the same manner in Canada and the U.S.[19] For instance, if Barrick Gold, ABX, is a treated security in the Pilot, then it should also be included in Group 3 in the SEC Pilot as currently proposed. Similarly, the interlisted stocks used as controls in the Pilot must be in the control group (currently Group 4) in the SEC Pilot.

C. Matching Procedure

We will follow the approach known as *the nearest-neighbor matching*. Specifically, for each possible pair of securities *i* and *j*, we will compute the pairwise scaled matching error as follows:

$$matcherror_{ij} = \sum_{k=1}^{M} \left(\frac{C_k^i - C_k^j}{C_k^i + C_k^j} \right)^2 , \tag{1}$$

where C_k is one of the above-mentioned matching characteristics, e.g., firm size, price, and trading volume. We will then sequentially select pairs with the lowest matching errors until all stocks are allocated a pair. Finally, we will randomly assign one stock in each pair for treatment and retain the other stock as a control.

IV. Empirical Measures and Analysis

A. Empirical Measures

Quoted Liquidity. The quoted spread will be computed as the difference between the Canada-wide best ask and bid prices (the CBBO). We will compute this metric in two ways: (i) across all markets and (ii) only for the markets with protected quotes. The quoted spread at time *t* for security *i* is defined as:

$$qs_{it} = ask_{it} - bid_{it}. \tag{2}$$

We will drop instances of locked markets, when the bid and the ask are equal, and instances of crossed markets, when the bid is greater than the ask.

Spreads usually vary in the stock price, and as such it is a common practice to compute the proportional spread as:

---

[19] https://www.sec.gov/comments/s7-05-18/s70518-4465710-175825.pdf

$$qsp_{it} = \frac{qs_{it}}{m_{it}}, \tag{3}$$

where m_{it} is the CBBO mid-quote defined as:

$$m_{it} = \frac{ask_{it} + bid_{it}}{2}. \tag{4}$$

To aggregate the spread metrics to the daily level, we will compute the *time-weighted* quoted spread on day *d* as follows:

$$twqsp_{id} = \frac{1}{\sum_t \Delta_{t,t+1}} \times \sum_t \Delta_{t,t+1}\ qsp_{it}, \tag{5}$$

where $\Delta_{t,t+1}$ is the number of time units during which the quote is active. For instance, if a quote is active from 14:35:00.002 to 14:35:08.004, then $\Delta_{t,t+1}$ = 8,002 milliseconds (ms).

Some of the stocks in our sample will likely be constrained by the minimum tick size of one cent. To account for this possibility, we will compute the fraction of the day that a stock is quoted with a one-cent spread.

We will compute *quoted depth* as the sum of the number of shares posted at both sides of the CBBO. We will compute *quoted dollar depth* as the sum of the dollar value of shares posted at both sides of the CBBO. We will time-weight both depth metrics.

Price Efficiency. The finance literature has developed a number of metrics that capture the speed with which (and the extent to which) prices incorporate new information. Generally speaking, the faster the price discovery process, the more informationally efficient are the prices.

Autocorrelation of Returns. Similarly to Hendershott and Jones (2005), we will compute the autocorrelation of midquote returns for 30-second, 1-minute, and 5-minute intervals. A lower absolute value of autocorrelation is associated with greater market efficiency as prices better resemble a random walk.

Variance Ratios. If prices are efficient and follow a random walk, the variance of midquotes is linear in the time horizon. Campbell, Lo, and MacKinlay (1997) define the scaled ratio of variances over *k* time horizons as: $|(\sigma_{tk}/k\sigma_t) - 1|$ and suggest that the closer this ratio is to 0, the more efficient is the market. We will follow the existing literature and compute the variance ratios for two intervals: 30-second to 1-minute and 1-minute to 5-minute.

Intra-Day Volatility. We will compute two volatility metrics: range-based and variance-based. The range-based metric is the daily average of the high-low price range computed over ten-minute intervals, scaled by the interval's mid-quote defined in equation (4) above. Aggregated over many securities, this metric is usually strongly correlated with overall market volatility as measured by the VIX.[20] The variance-based metric is the standard deviation of the one-minute mid-quote returns for the day.

Activity Levels. To measure market activity, we will compute several trading volume metrics such as volume at the open and close, volume during the continuous market, volume in intentional crosses, and dark volume.

We will further compute a set of order-related metrics such as the number of orders and their value, the proportion of canceled and executed orders, the proportion of executed order value, the number of orders that match or improve the CBBO, and the proportion of orders one and two cents away from the best quotes, as well as one percent and five percent of the mid-quote away from the best quotes.

We note that there are no agreed-upon economic measures that determine whether a change in market activity levels is beneficial or harmful. Therefore, volume and order submission figures must be interpreted with caution.

Effective Spreads. Effective spreads measure the costs that market participants incur when they trade. It is conventional to base the computation of effective spreads on the mid-quote of the prevailing CBBO. For security *i*, the proportional effective spread for a trade at time *t* is defined as:

$$esp_{it} = 2 \times q_{it} \times \frac{p_{it} - m_{it}}{m_{it}}, \qquad (6)$$

where p_{it} is the transaction price, m_{it} is the mid-quote of the CBBO prevailing at the time of the trade, and q_{it} is an indicator variable that equals 1 if the trade is buyer-initiated and −1 if the trade is seller-initiated. The factor 2 is used to make the estimate comparable to the quoted spread by capturing the cost of a round-trip transaction.

To obtain a daily effective spread estimate, it is common to volume-weight transaction-specific estimates, i.e., for trades of volumes $v_{it,}$ the effective spread on day *d* is the sum of the trades' effective spreads weighted by the trades' shares of total daily volume:

$$vwesp_{id} = \frac{1}{\sum_t v_{it}} \times \sum_t v_{it} esp_{it}. \qquad (7)$$

The purpose of the Pilot is to understand the impact of a prohibition of rebates and we will therefore compute the "cum fee" effective spread (often referred to in the industry as the "economic" spread):[21]

$$cum\ fee\ esp_{it} = esp_{it} + 2 \times taker\ \ fee_{it}/m_{it}. \qquad (8)$$

[20] The CBOE Volatility Index (VIX) is a calculation designed to produce a measure of constant, 30-day expected volatility of the U.S. stock market, derived from real-time, mid-quote prices of S&P 500 Index call and put options.
[21] This measure will be computed per transaction. We caution that it will be difficult to determine precisely which fees apply; dark, lit, and post-only orders may all command different fees, market-makers may receive bulk-discounts, etc. We will apply a uniform rule by employing only the "most common" fee that applies on the specific venue.

Price Impact and Realized Spread. It is common practice to decompose the effective spread into two components: the *price impact* and the *realized spread*. The price impact measures by how much the trade moves the price and is formally defined as:

$$primp_{it} = 2 \times q_{it} \times \frac{m_{i,t+\tau} - m_{it}}{m_{it}}, \tag{9}$$

where $m_{i,t+\tau}$ is the CBBO midpoint τ time units after the trade. The idea behind this measure is that trades reveal information about the fundamental value of the underlying security, and the market needs time to incorporate this information into prices. The time horizon τ is set according to the frequency with which a security trades and varies between one second for the frequently traded stocks to five seconds for the less frequently traded ones.

The price impact is directly related to the realized spread, which is defined as:

$$rsp_{it} = esp_{it} - primp_{it} \tag{10}$$

and is interpreted as the revenue that liquidity providers receive net of the adverse selection costs captured by the price impact. Analogously to the cum fee effective spreads, we will account for the rebates that liquidity providers are eligible to receive and will compute the cum rebate realized spreads as follows:

$$cum\ fee\ rsp_{it} = rsp_{it} + 2 \times maker\ \ rebate/m_{it}. \tag{11}$$

Implementation Shortfall. Buy-side institutions often trade amounts that are larger than the depth available at the best prices and therefore commonly slice large "parent" orders into smaller "child" orders. The child orders may move market prices away from the price prevalent at the beginning of the large trade and as such increase the total cost of the parent order. Buy-side traders therefore worry about the total cost of their parent orders, which is usually measured by the implementation shortfall (IS).

While we likely cannot identify the buy-side trades directly, we will proxy for parent orders by identifying instances where a single trader executes several trades in the same direction on a given day and trades only in that direction. The total cost associated with such a string of trades will be measured by the implementation shortfall defined as:

$$IS_{it} = q_{it} \times (\$vol_{it} - p_{i0} \times vol_{it}), \tag{12}$$

where q_{it} is +1 for a string of buys and −1 for a string of sales that begins at time *t* in stock *i*, $\$vol_{it}$ is the total dollar volume for the string, p_{i0} is the prevailing mid-quote at the time of the first trade in the string, and vol_{it} is the total share volume for the string.

A positive shortfall indicates that prices move in the same direction as the parent order. In our reporting, the aggregate shortfall will be computed in basis points of the aggregate dollar volume traded. We will consider two types of trade strings: (i) those that originate from marketable orders only and (ii) those that originate from marketable and non-marketable orders.

Passive Order Execution Quality. For retail orders and for large trade strings, we will compute the resting time of non-marketable orders. We will specifically focus on orders with prices that suggest that the submitter is interested in a timely execution. As such, we will consider only orders that are submitted at prices that match or improve the CBBO.

For large trade strings, we will also report the average fraction of volume that is traded with marketable orders. A change in this measure captures the possibility that institutional investors may change their strategies and choose to "cross the spread" more/less often.

Finally, we will examine the ratio of traded to submitted orders; this ratio captures how many orders an institution needs to submit to fill a position. We will consider only the orders submitted at prices matching or improving the CBBO. We will also compute this ratio for share volume.

B. Statistical Analysis

The basis of our statistical approach is a conventional difference-in-differences analysis of a panel dataset (securities×days). Analyses of this kind usually rely on two approaches to examine the treatment effect (i.e., the effect of rebate prohibition). We discuss these approaches below using the bid-ask spread as an example.

In the first approach, the dependent variable ΔDV_{it} is the value of the bid-ask spread for the treated security i at time t less the value for the matched security. Using this dependent variable, we will estimate the following regression:

$$\Delta DV_{it} = \alpha \cdot pilot_t + controls_t + \delta_i + \varepsilon_{it}, \tag{13}$$

where $Pilot_t$ is an indicator variable set to 1 on the Pilot start date, $controls_t$ are time series controls such as the VIX, and $\underline{\delta_i}$ are security-pair fixed effects. The coefficient of interest α captures the effect of the Pilot on treated securities.[22]

In the second approach, the dependent variable DV_{it} is the value of the bid-ask spread for each security from the treatment and control groups. Using this dependent variable, we will estimate the following regression:

$$\Delta DV_{it} = \alpha_1 \cdot pilot_t + \alpha_2 \cdot pilot_t \times treated_i + \alpha_3 \cdot treated_i + controls_t + \delta_i + \varepsilon_{it}, \tag{14}$$

where $Pilot_t$ is the indicator variable set to 1 on the Pilot start date, $treated_i$ is 1 if the security is from the treatment group and 0 otherwise, $controls_t$ are time series controls such as the VIX, and $\underline{\delta_i}$ are security fixed effects. The coefficient of interest is α_2; it estimates the incremental effect of the Pilot on the treated securities. For instance, with quoted spread as the dependent variable, a positive α_2 will indicate that the spreads for the treatment group increased relative to the control group.

We will conduct inference in all regressions using double-clustered Cameron, Gelbach, and Miller

[22] This regression methodology is similar to that in Hendershott and Moulton (2011) and Malinova and Park (2015).

(2011) standard errors, which are robust to cross-sectional correlation and idiosyncratic time-series persistence.[23]

Each approach will use two controls for the market-wide effects that are known to affect trader behaviour and market quality. First, we will use the U.S. volatility index, VIX, to control for the level of market-wide volatility. We acknowledge that Canada has its own volatility index, but note that this index may be directly affected by trading in the sample securities, while the U.S. VIX is less likely to be similarly affected. Second, we will use the cumulative return for the S&P GSCI commodity index. Comerton-Forde, Malinova, and Park (2018) show that this index is highly correlated with the Canadian TSX Composite index, but is unlikely to be significantly affected by trading in Canada and therefore serves as a proxy for Canadian market-wide returns.

V. Anticipated Challenges

We caution that several possible scenarios may affect our ability to deliver meaningful conclusions. First, individual firms in the sample may experience events during the Pilot that render them unusable for the subsequent statistical analyses (e.g., mergers, bankruptcies, or delistings). We will mitigate the impact of such events by building the final sample as close as possible to the start of the Pilot. This said, if one of the above-mentioned events occurs after the sample is finalized, we may omit the affected security and its match from further analyses.

Second, all securities may be affected by major market-wide confounding events. Examples are a failure of a major financial institution, a market crash, or a political event. While a staggered introduction, the use of control groups, and a sufficiently long Pilot period alleviate some of the concerns regarding such events, the CSA will reserve the right to extend the Pilot or to delay the start of the Pilot if necessary.

Third, the marketplaces may develop workarounds for rebate prohibitions that undermine the Pilot, e.g., differentiated fees, bulk discounts, new order types, new venues or order books, etc. Possible effects of such developments will be evaluated by the CSA prior to their approval, with the focus on preserving the scientific integrity of the Pilot.

VI. Timing

We propose that the Pilot match the duration of the SEC Pilot. We also propose that the Pilot proceed in two stages: (i) non-interlisted stocks first and (ii) interlisted stocks second (together with the SEC Pilot), with a three- to six-month separation between the stages, should timing of the SEC Pilot permit.

As we mention earlier, the staggered introduction may alleviate concerns should the Pilot begin around the time of an unexpected market-wide event. For example, in July 2011, the SEC adopted a new rule that restricted some aspects of direct market access (DMA). Several research teams endeavored to analyze this event. Unfortunately, about two weeks after the DMA rule adoption,

[23] Cameron, Gelbach, and Miller (2011) and Thompson (2011) developed the double-clustering approach simultaneously. See also Petersen (2009) for a detailed discussion of (double-)clustering techniques.

the U.S. credit rating was downgraded, creating a substantial amount of noise in the data. No research team has been able to produce meaningful conclusions, since the noise completely confounded the results. We caution that a similarly unpredictable event may confound the results of the Pilot if all stocks are introduced at once.

Our conversations with market participants suggest that they share this concern, and we received feedback that the difference between the two-stage and all-at-once alternatives is immaterial in terms of technical implementation.

VII. Communication and Transparency

We believe that transparency is integral when conducting studies and commit to providing timely and comprehensive updates to the CSA for disclosure to market participants.

For the data preparation and analysis stages of our work, we will use SAS, SQL, and Stata coding packages. In the interest of transparency, we will make all codes publicly available via GitHub (the online code depository). Comments for code improvement will be welcome; GitHub includes a comment function. Where possible, we will also provide the data (e.g., the non-proprietary data that will be used for the matching process). We believe that this level of transparency will bring added trust in the integrity of our analysis.

Further, we welcome suggestions for improvement of the proposed Pilot structure and analyses. We recognize the importance of consultation with market participants and coordination with other regulatory bodies and are prepared to consider alternative designs. We have received excellent feedback from the CSA, the members of the OSC Market Structure Advisory Committee, the Canadian Securities Traders Association, and participants at the Rotman Capital Markets Institute Panel Discussion. This report reflects this feedback.

Appendix I: A Sample Matching Procedure

This appendix provides an example of the matching procedure used to assign Canadian stocks interlisted in the U.S. into the treatment and control groups.

Trading volume, price, and market capitalization figures are the latest available from the Canadian Financial Markets Research Centre (CFMRC) database.[24] Trading volume is the average daily dollar volume, price is the closing price, and market capitalization is the product of the price and the number of shares outstanding. We use Canadian dollars for variables that require a price component.

We arrive at the matched sample using the following procedure:

1. We begin with a sample of 181 Canadian securities listed on the Toronto Stock Exchange (TSX) that are also interlisted on the NYSE, NYSE Arca, NYSE MKT, Nasdaq GM, and Nasdaq CM.

2. Among these, we identify 18 securities that trade at prices below $1 and refer to them as low-priced (LP). Price volatility in such securities is rather high, and as we mention previously, LPs are usually excluded from research samples.

3. Among the remaining securities, we identify 107 that are on IIROC's "highly liquid" list. We refer to these as HL stocks, and the remaining 56 securities are nHL (not highly liquid). We match HL stocks to HL stocks and nHL stocks to nHL stocks.

4. For each possible pair of *i* and *j* securities, we estimate a match error as follows:

$$matcherror_{ij} = \sum_{k=1}^{3}\left(\frac{C_k^i - C_k^j}{C_k^i + C_k^j}\right)^2,$$

   where C_k are natural logs of trading volume, price, and market capitalization as defined above.

5. From the matrix of match errors that spans all stock pairs, we then select stock pairs with the lowest errors, for a total of 53 HL pairs, 28 nHL pairs, and 9 LP pairs.

6. Finally, to assign stocks into the treated and control groups, for each pair we generate a random number between 0 and 1. If this number is below 0.5, we assign the first stock in the pair to be treated and vice versa.

Figure 1 provides an illustration of match quality. The horizontal and vertical axes represent logarithms of market capitalization, dollar volume, and stock price for pairs of securities, with a

---

[24] http://clouddc.chass.utoronto.ca/ds/cfmrc. In rare cases when CFMRC does not have a valid record for a security, we obtain the missing data from https://www.tmxmoney.com/en/index.html

random assignment of one member in the pair to the treatment and the other to the control group. A good match obtains if the points are on or close to the 45-degree line. A formal *t*-test shows no evidence that the treatment and control samples are different for any of the matching criteria.

Appendix II: Questions for Market Participants

1. We propose to define a security as medium-liquid if it trades at least 50 times a day on average and more than $50,000 on average per trading day over the past month. Do you believe that this definition is appropriate? If not, please provide an alternative definition and supporting data, if available, to illustrate which securities your definition captures.

2. We propose to introduce the Pilot in two stages, with non-interlisted securities first, followed by interlisted securities. Do you believe that such staggered introduction will cause material problems for the statistical analysis and the results of the Pilot? If so, please describe your concerns in detail.

3. Several Canadian marketplaces offer formal programs that reward market makers with enhanced rebates in return for liquidity provision obligations. On the one hand, such programs may benefit liquidity. One the other hand, one of the primary objectives of the Pilot is to understand if rebates cause excessive intermediation. In your opinion, should exchanges be allowed to continue using rebates or similar arrangements for market making programs during the Pilot? Do you believe any constraints on such programs during the Pilot to be appropriate?

4. We propose to compute price impacts at the one- and five-second horizons. Do you believe that we should consider other horizons? If so, which ones?

5. We propose to compute time-to-execution for limit orders posted at the CBBO prices or improving these prices. Do you believe that we should consider different price levels? If so, which ones? Please provide supporting data and analysis, if available, to demonstrate the empirical importance of order postings at other levels.

6. We propose a number of market quality metrics. Do you believe that we should consider additional metrics? If so, please outline these metrics and provide supporting data and analysis, if available, to demonstrate their empirical importance.

7. We have had extensive discussions with a number of market participants on whether to include exchange-traded products (ETPs) in the Pilot, and some participants suggest that such an inclusion is warranted. Nevertheless, others point out that trading characteristics of ETPs are substantially different from those of corporate equities and including ETPs will present significant challenges in the matching stage and will likely confound the results in the analysis stage.

   These participants and our own research identify the following concerns:

   - most liquidity in ETPs is determined and provided by contracted market makers, and the ETP creation/redemption process represents its own source of liquidity;

   - matching characteristics that we propose to use for corporate equities do not have the same meaning for ETPs. For instance, ETP fund size is not a relevant metric, and ETP trading volume is usually not correlated with quoting activity or liquidity;

- spillover effects of two types may confound the results. First, liquidity in ETPs relates to liquidity of the underlying basket of securities, and if the basket is significantly affected by the Pilot, the ETP will be affected too. Second, ETPs that follow the same baskets may be viewed not only as good matches, but also as substitutes for investment, hedging, and trading purposes. If one of them is selected to be treated, and the other is not, market participants may move between products, potentially confounding the results of the Pilot.

The above-mentioned concerns make finding matched ETP pairs a uniquely challenging task. To the best of our knowledge, there is no established procedure for matching ETPs to study their trading costs.

As such, in relation to ETP inclusion, we ask that market participants consider the following questions: Given the challenges that ETP matching presents, can the goals of the Pilot be achieved without including ETPs in the sample? If ETP inclusion is important, can you propose a way to construct a matched sample that addresses the concerns identified above?

Appendix III: Responses to Received Questions

The Capital Markets Institute held an open forum on the Pilot at the Rotman School of Management on September 12, 2018.[25] The event included a panel of industry experts who had been asked to comment on various aspects of the Pilot's design. Prior to and during the event as well as in the weeks that followed, we received a number of thoughtful questions and comments from market participants and are grateful for their time and advice. We believe that this design report addresses most of the issues raised during these discussions. We list the most common comments here for reference.

- **Inclusion of less liquid securities.** In our presentation, focusing mainly on statistical considerations, we proposed that the Pilot only examine highly liquid securities. The participant consensus however was to include a broader set of securities. The current version of the design report proposes including a set of securities with medium levels of liquidity. We caution that due to statistical noise the analysis of these securities may be inconclusive. To ensure that the less liquid securities do not contaminate the analysis of liquid securities, we will treat them separately both during the matching and the analysis stages.

- **Rebate prohibition vs. symmetric fees.** Our presentation and several market participants point out that some aspects of the current rebate economics are preserved even if rebates are prohibited. Specifically, some venues may begin charging liquidity makers no fees and charging the takers positive fees, while others may do the opposite. We believe that symmetric "take-take" fees are the only way to entirely eliminate potential conflicts of interest identified in the academic literature (Battalio, Corwin, and Jennings, 2016). The CSA has discussed the possibility of mandating symmetric fees and has decided to pursue only rebate prohibition at this time.

- **Replication of the SEC Pilot buckets.** Several participants suggested that we follow the SEC Pilot structure and use three treatment buckets with varying caps on fees. Unfortunately, there are too few Canadian securities to populate such buckets and to conduct an analysis that allows for meaningful policy advice. For instance, there are only about 100-120 highly liquid interlisted securities. Splitting them into three treatment buckets and one control bucket will result in only 25-30 securities per bucket, leading to statistical estimation problems.

- **Staggered introduction.** We have received several distinct proposals for the staggered introduction of stocks into the Pilot, including, for instance, a step-wise lowering of rebates. We believe that the current design that proposes to treat non-interlisted securities first and interlisted securities second with the SEC Pilot, provides the best compromise between cost/risk considerations and an economically meaningful analysis.

- **Suggestions for the analysis.** Several market participants have made suggestions as to which aspects of market quality we should pay attention to. These include the cost of executing large orders, dealer routing and posting behaviors, dark trading, time to execution, and levels of

---

[25] Presentation slides are available at https://slides.com/ap248/cmi_csa_tickpilot_slides#/

intermediation. We are grateful for these comments and have incorporated them into the report. We are open to further suggestions that may enhance the analysis.

References

Battalio, Robert, Shane Corwin, and Robert Jennings, 2016, Can brokers have it all? on the relation between make-take fees and limit order execution quality, *The Journal of Finance* 71, 2193–2238.

Cameron, A. Colin, Jonah B. Gelbach, and Douglas L. Miller, 2011, Robust inference with multi-way clustering, *Journal of Business Economics and Statistics*, forthcoming.

Campbell, John Y., Andrew W. Lo, and A. Craig MacKinlay, 1997, *The Econometrics of Financial Markets* (Princeton University Press).

Comerton-Forde, Carole, Katya Malinova, and Andreas Park, 2018, Regulating dark trading: Order flow segmentation and market quality, *Journal of Financial Economics*, forthcoming.

Devani, Baiju, Ad Tayal, Lisa Anderson, Dawei Zhou, Juan Gomez, and Graham W. Taylor, 2014, Identifying trading groups – methodology and results, Discussion paper, IIROC Working Paper.

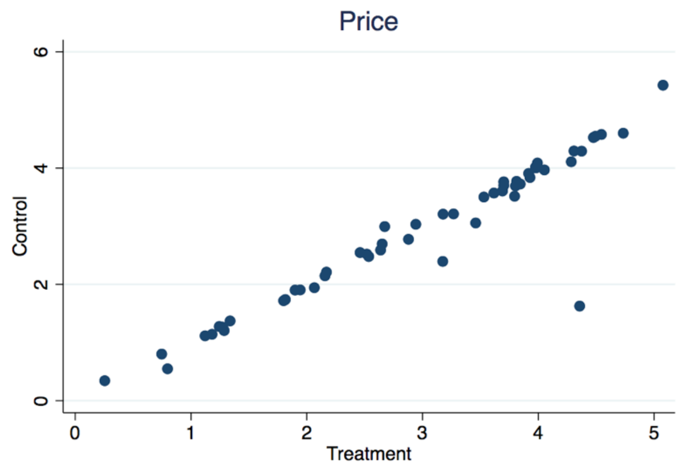
Hendershott, Terrence, and Charles M. Jones, 2005, Island goes dark: Transparency, fragmentation, and regulation, *The Review of Financial Studies* 18, 743–793.

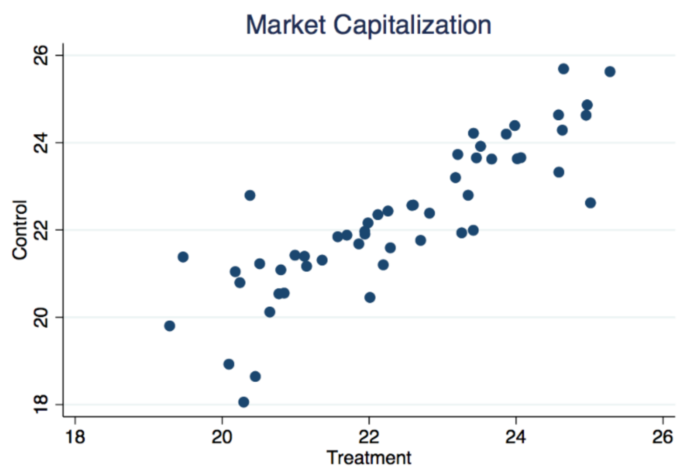
Hendershott, Terrence, and Pam Moulton, 2011, Automation, speed, and stock market quality: The NYSE's hybrid, *Journal of Financial Markets* 14, 568–604.

Malinova, Katya, and Andreas Park, 2015, Subsidizing liquidity: The impact of make/take fees on market quality, *The Journal of Finance* 70, 509–536.

Petersen, Mitchell A., 2009, Estimating Standard Errors in Finance Panel Data Sets: Comparing Approaches, *Review of Financial Studies* 22, 435–480.

Thompson, Samuel B., 2011, Simple formulas for standard errors that cluster by both firm and time, *Journal of Financial Economics* 99, 1–10.


Price
Control
Treatment
0
2
4
6
0
1
2
3
4
5


Market Capitalization
Control
Treatment
18
20
22
24
26
18
20
22
24
26

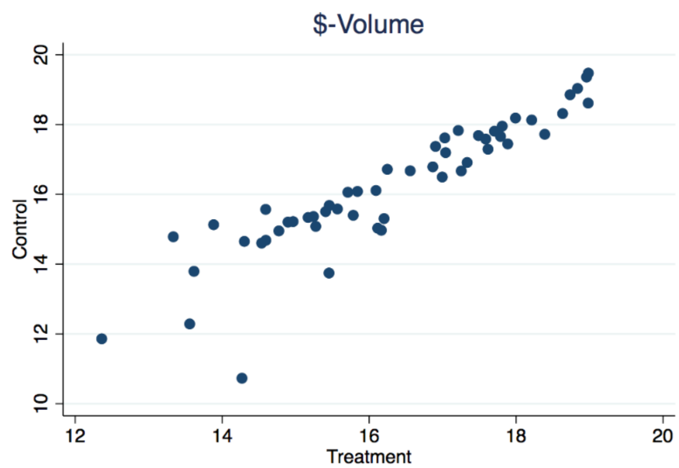

$-Volume
Control
Treatment
10
12
14
16
18
20
12
14
16
18
20

Figure 1

Appendix B – Draft Model Order

MODEL DRAFT ORDER

IN THE MATTER OF THE SECURITIES ACT, RSO 1990, CHAPTER S5, AS AMENDED

(the "Act")

AND

IN THE MATTER OF [INSERT EXCHANGE/ATS]

([Exchange/ATS short form])

ORDER (Subsection 21(5)/Section 21.0.1 of the Act)

WHEREAS [Exchange/ATS short form] is an exchange/alternative trading system (ATS) carrying on business in Ontario;

AND WHEREAS if it considers it to be in the public interest, the Ontario Securities Commission (Commission) has the authority to make any decision with respect to the manner in which a recognized exchange/an alternative trading system carries on business;

AND WHEREAS the payment of rebates by a marketplace may be changing behaviours of marketplace participants and creating unnecessary conflicts of interest for dealer routing decisions that may be difficult to manage, contributing to increased segmentation of order flow, and/or contributing to increased intermediation on highly liquid securities;

AND WHEREAS in light of the information set out in the paragraph above, it is the Commission's opinion that it is in the public interest to conduct a pilot study on the prohibition of the payment of rebates by marketplaces for a sample of securities (the Pilot);

AND WHEREAS the Pilot will apply to [insert number] of securities;

AND WHEREAS the objective of the Pilot is to gain a better understanding of the effects of the prohibition of rebate payments by Canadian marketplaces (the Objective) to determine whether the Commission should facilitate the transition to an amended rule regarding the payment of rebates by marketplaces;

IT IS ORDERED that, pursuant to subsection 21(5)/section 21.0.1 of the Act:

1. On [insert Pilot start date], [insert Exchange/ATS] shall implement the Pilot according to the design set out at Appendix A appended to this Order, by eliminating rebates for those securities set out at [insert where treated securities listed] in Appendix A until [insert Pilot end date].

2. Between [insert Pilot start date] and [insert Pilot end date], if [insert Exchange/ATS] seeks any amendment to its Form 21-101F1/2, including the exhibits thereto (the Proposed Amendments), [insert Exchange/ATS] shall file submissions which satisfy the Commission that the Proposed Amendments do not negatively impact the Objective of the Pilot.

DATED this __ day of _______________, 201_, to take effect ____________________, 201_.

_________________________	_________________________
[Name]	[Name]
[Title]	[Title]
Ontario Securities Commission	Ontario Securities Commission

Deanna Dobrowsky
Vice President, Regulatory
Office of the General Counsel
300-100 Adelaide Street West
Toronto, Ontario M5H 1S3

T (416) 365-8130
F (416) 947-4461
deanna.dobrowsky@tmx.com

January 9, 2019

VIA EMAIL

The Secretary
Ontario Securities Commission
20 Queen Street West, 22nd Floor
Toronto, Ontario M5H 3S8
comments@osc.gov.on.ca

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, rue du Square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal (Québec) H4Z 1G3
Consultation-en-cours@lautorite.qc.ca

Dear Sirs/Mesdames:

RE: CSA Staff Notice and Request for Comment 23-323 ("2018 RFC")

TMX Group Limited (**"TMX Group"**) would like to take this opportunity to provide feedback on the length of the comment period which accompanies the 2018 RFC concerning the proposed Trading Fee Rebate Pilot Study (**"Proposed Pilot"**) published on December 18, 2018.

We believe that the Proposed Pilot has the potential to materially impact equity market structure and those that participate within equities markets, including marketplaces, dealers, investors and issuers. In this letter, we focus specifically on the length of the unusually, and we believe inappropriately, short comment period and we urge the Ontario Securities Commission (the **"Commission"**) to reconsider the length of the comment period in advance of the period expiry date. TMX Group intends to submit a full response on the substantive issues raised by the 2018 RFC at a later date.

We have carefully reviewed the 2018 RFC and its Appendix B "Model Draft Order". We would note that orders made by the Commission under s. 21(5)/s.21.0.1 (**"s.21 Orders"**) of the *Securities Act* (Ontario) (the **"*Act*"**) are binding and a failure to comply with s.21 Orders could lead to possible enforcement action and substantive penalties. We would also note that, following what is commonly known in the industry as the Ainsley decision, the Ontario Legislature, by virtue of the *Securities Amendment Act, 1995*, authorized the Commission to make rules under s. 143(1) of the *Act* and to adopt policies under s. 143.8 of the *Act*. The difference between rules and policies, according to the Commission's document "Rule-making in Ontario"[1] (**"Backgrounder")**, is that rules are of a "binding nature" and a "person or a company that contravenes a rule may be subject to enforcement action". Unlike rules, policies "may not be prohibitive or mandatory in character". Therefore, while rules mandate, policies inform. Policies can, for example, "inform market participants of (a) how the Commission may exercise its discretionary authority, (b) how the Commission interprets Ontario securities law, and (c) the practices followed by the Commission in performing its duties under the Act." Rules would mandate these same actions.

Based on the 2018 RFC, the s.21 Orders the Commission intends to issue to enact the Proposed Pilot would mandate industry-wide participation for all marketplaces and marketplace participants with no 'opt-out' provisions. The Proposed Pilot would also be prohibitive in nature in that it would prohibit marketplaces from paying rebates on a mandated set of securities. Unlike other Commission orders made under section 21 of the *Act* that intend to narrowly address the activities of a specific marketplace, the 2018 RFC indicates that the Commission would be issuing multiple orders to impose a market structure change that would have the effect of altering National Instruments 21-101 and 23-101, and that will directly impact investors, issuers, participants and all equities marketplaces.

According to s.143.2(4) of the *Act*, proposed binding rules that mandate participation and impose prohibitions must be published for public comment for no less than 90 days. Given the breadth of impact and mandatory nature of the s.21 Orders the Commission intends to issue to enact the Proposed Pilot, we submit that the Commission would be, in essence, rule-making if it were to issue these s.21 Orders. In our view therefore, the 2018 RFC warrants a 90-day comment period.

In addition to the analysis provided above, there are also practical considerations that should appropriately inform the length of 2018 RFC comment period. The Proposed Pilot has the potential to materially impact equity market structure and Canada's capital markets, including marketplaces, dealers, investors and issuers. On this basis alone, it is important to ensure that industry stakeholders are afforded enough time to perform a comprehensive review of the 2018 RFC, prepare a thoughtful response, and satisfy their internal review requirements (e.g., review by internal legal counsel where applicable as well as senior management). In our view, a 45-day comment period that coincides with a winter holiday season which is traditionally characterized by office closures and sparse staffing across the industry, is not sufficient for this purpose and may result in a less meaningful and representative comment process.

We expect that one of the reasons that the Commission provided such a short comment period for the 2018 RFC may be its desire to align the Proposed Pilot with the Transaction Fee Pilot that the US Securities and Exchange Commission (**"SEC"**) expects to begin in the United States later this year (**"US Pilot"**). We would note that there is no need for the Canadian Securities Administrators (**"CSA"**) to match the projected timeline of the US Pilot as the SEC has already

[1] http://www.osc.gov.on.ca/documents/en/Securities-Category0/backgrounder_rule_making.pdf

contemplated and accommodated for a delay period if a Canadian pilot were to begin after the US Pilot. The SEC's final rule indicates that if the Canadian pilot is delayed, all interlisted securities will be placed in a control group until the Canadian pilot starts, at which point the SEC will mirror the Canadian no-rebate bucket and control group split. We would also note that if the Canadian pilot were to start later than the US Pilot, the delay would have the benefit of allowing the CSA to observe the initial impact of the US Pilot and to learn from any US Pilot implementation challenges, before starting a Canadian pilot.

Based on the above, we urge the Commission to extend the comment period to 90 days. This extension is appropriate given the nature of the 2018 RFC and the potential market impact of the Proposed Pilot, and will allow for a better quality and more representative response from the many industry participants that will be impacted by the material changes being proposed to Canadian equity market structure.

TMX Group appreciates your consideration of this matter.

Respectfully submitted,

Deanna Dobrowsky

cc: Maureen Jensen, OSC Chair
Tim Moseley, OSC Vice Chair
Grant Vingoe, OSC Vice Chair
AnneMarie Ryan, OSC Lead Director
Kevin Sampson, TMX Group

OMERS

Capital Markets
900 - 100 Adelaide St W
Toronto, ON M5H 0E2 | Canada
T +1 416.814.4100

January 23, 2019 **Due: March 1**

VIA EMAIL

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission of New Brunswick
Superintendent of Securities, Department of Justice and Public Safety, Prince Edward Island
Nova Scotia Securities Commission
Office of the Superintendent of Securities, Service Newfoundland and Labrador
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Department of Justice, Government of Nunavut

The Secretary
Ontario Securities Commission
20 Queen Street West
22nd Floor, Box 55
Toronto, Ontario M5H 3S8
Email: comments@osc.gov.on.ca

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, Square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal (Québec) H4Z 1G3
Email: consultation-en-cours@lautorite.qc.ca

Dear Sirs/Mesdames:

Re: CSA Staff Notice and Request for Comment 23-323, Trading Fee Rebate Pilot Study (the "CSA Staff Notice")

OMERS Administration Corporation ("OAC") appreciates the opportunity to comment on the Trading Fee Rebate Pilot Study that would apply temporary pricing restrictions on marketplace transaction fees applicable to trading in certain securities.

The Ontario Municipal Employees Retirement System ("OMERS") Primary Plan is the defined benefit pension plan for almost half a million members from municipalities, school boards, emergency services, and local agencies across Ontario. OAC, as the administrator of the OMERS Primary Plan and trustee of the pension fund relating to the Primary Plan, is a statutory corporation without share capital, continued pursuant to the *Ontario Municipal Employees Retirement System Act, 2006*. OAC is a global investor, responsible for managing over $95 billion in net assets across a range of public and private market investment strategies, including substantial holdings of Canadian and US/CAD inter-listed equities. OMERS values reflect integrity, service, teamwork, excellence and stewardship.

OAC has been a strong advocate of studying trading fee rebates and their impact on market quality, execution quality and order routing behavior.[1] We are supportive of the collaborative, data driven approach proposed by the Canadian Securities Administrators and the Securities Exchange Commission. What follows are comments on what we believe to be the key aspects of the proposed pilot.

Scope, timing and Duration

We generally agree with regulators regarding the timing, duration, and scope of the proposed pilot. Given the interconnected and porous nature of Canadian capital markets, we believe that it is reasonable to align the timing and duration of the Canadian pilot with the US pilot for interlisted securities to prevent any unintended consequences disproportionately harming Canadian liquidity. We see no issue with a proposed staggered start date for non-interlisted securities and we concur with regulators that such an approach may help to mitigate the potential for market-wide confounding events. As proposed, the universe of "highly liquid" and "medium liquid" securities is sufficiently broad and would capture over ninety percent of the Canadian listed market capitalization[2]. Such scope should create a representative sample of securities. By leveraging IIROC's Surveillance Technology Enhancement Platform (STEP), we believe that regulators ought to be able to capture a consistent, cross sectional view of all trading, occurring on all exchanges and ATS marketplaces.

Pilot Design

A matched pairs design based on market capitalization, share price and trading volume seems intuitive and our own trading experience supports the inclusion of such characteristics as meaningful drivers of securities trading behaviour.

---

[1] Letter from Rob Gouley and Brent Robertson, OMERS, to Mr. Brent J. Fields, Secretary, Securities and Exchange Commission, May 15, 2018, available at https://www.sec.gov/comments/s7-05-18/s70518-3647325-162406.pdf.

[2] CSA Staff Notice 23-322, *Trading Fee Rebate Pilot Study*. March 2018, available at http://www.osc.gov.on.ca/en/SecuritiesLaw_sn_20180316_23-322_trading-fee-rebate-pilot-study.htm

Empirical Measures

As stated, the purpose of the proposed pilot is to better understand how the prohibition of rebates may affect dealers' routing practices, the level of intermediation and standard measures of market quality. We believe that understanding the impact of rebates on execution quality measures, such as implementation shortfall, time-to-fill and other delay cost metrics, should also be considered with equal emphasis. More specifically, from an institutional investors' perspective, often the costliest order is the order that is delayed, or never completed at all. We encourage regulators to examine passive order placement and to measure the delay cost of marketable, passive orders that are canceled or subsequently repriced.

Responses to Questions for Market Participants

You will find below our response to each question set forth in *Appendix II: Questions for Market Participants* to the CSA Staff Notice. For ease of reference, we have reproduced each question in italics preceding the applicable comment.

1. *We propose to define a security as medium-liquid if it trades at least 50 times a day on average and more than $50,000 on average per trading day over the past month. Do you believe that this definition is appropriate? If not, please provide an alternative definition and supporting data, if available, to illustrate which securities your definition captures.*

   We support the proposed definition of medium-liquid securities in the pilot.

2. *We propose to introduce the Pilot in two stages, with non-interlisted securities first, followed by interlisted securities. Do you believe that such staggered introduction will cause material problems for the statistical analysis and the results of the Pilot? If so, please describe your concerns in detail.*

   No. We support the staggered start date between Canadian listed and inter-listed securities.

3. *Several Canadian marketplaces offer formal programs that reward market makers with enhanced rebates in return for liquidity provision obligations. On the one hand, such programs may benefit liquidity. One the other hand, one of the primary objectives of the Pilot is to understand if rebates cause excessive intermediation. In your opinion, should exchanges be allowed to continue using rebates or similar arrangements for market making programs during the Pilot? Do you believe any constraints on such programs during the Pilot to be appropriate?*

   We believe that rebates and any liquidity or market making incentive programs that are effectively similar to rebates should be constrained during the duration of the study. In particular, we remain concerned that firms qualifying for market maker incentives benefit in ways that materially impact the economies of their agency-facing businesses and overall order routing behaviours. While we understand the goals of promoting market making by market makers, in practice, the implementation may be difficult and may undermine the utility of the pilot.[3]

4. *We propose to compute price impacts at the one- and five-second horizons. Do you believe that we should consider other horizons? If so, which ones?*

   We would recommend 50 millisecond and 500 millisecond horizons as well as those proposed.

5. *We propose to compute time-to-execution for limit orders posted at the CBBO prices or improving these prices. Do you believe that we should consider different price levels? If so, which ones? Please provide supporting data and analysis, if available, to demonstrate the empirical importance of order postings at other levels.*

   We believe that computing time-to-execution for limit orders posted at the CBBO is sufficient.

6. *We propose a number of market quality metrics. Do you believe that we should consider additional metrics? If so, please outline these metrics and provide supporting data and analysis, if available, to demonstrate their empirical importance.*

   We encourage regulators to measure the delay cost of marketable, passive orders that are canceled or subsequently repriced.

7. *We have had extensive discussions with a number of market participants on whether to include exchange-traded products (ETPs) in the Pilot, and some participants suggest that such an inclusion is warranted. Nevertheless, others point out that trading characteristics of ETPs are substantially different from those of corporate equities and including ETPs will present significant challenges in the matching stage and will likely confound the results in the analysis stage.*

   These participants and our own research identify the following concerns:

   - *most liquidity in ETPs is determined and provided by contracted market makers, and the ETP creation/redemption process represents its own source of liquidity;*

[3] Letter from Ty Gellasch, Healthy Markets Association, to Mr. Brent J. Fields, Secretary, Securities and Exchange Commission, May 24, 2018, available https://www.sec.gov/comments/s7-05-18/s70518-3704495-162465.pdf

- *matching characteristics that we propose to use for corporate equities do not have the same meaning for ETPs. For instance, ETP fund size is not a relevant metric, and ETP trading volume is usually not correlated with quoting activity or liquidity;*

- *spillover effects of two types may confound the results. First, liquidity in ETPs relates to liquidity of the underlying basket of securities, and if the basket is significantly affected by the Pilot, the ETP will be affected too. Second, ETPs that follow the same baskets may be viewed not only as good matches, but also as substitutes for investment, hedging, and trading purposes. If one of them is selected to be treated, and the other is not, market participants may move between products, potentially confounding the results of the Pilot.*

The above-mentioned concerns make finding matched ETP pairs a uniquely challenging task. To the best of our knowledge, there is no established procedure for matching ETPs to study their trading costs.

As such, in relation to ETP inclusion, we ask that market participants consider the following questions: Given the challenges that ETP matching presents, can the goals of the Pilot be achieved without including ETPs in the sample? If ETP inclusion is important, can you propose a way to construct a matched sample that addresses the concerns identified above?

We believe that ETPs should be included, and that the exclusion of ETPs from the proposed pilot would be problematic. If the empirical evidence gathered from the pilot suggests that regulators should take a policy action on trading fee rebates, regulators will need to extrapolate the results observed from equities and apply them to ETPs. The trading behavior of ETPs is similar, but also distinct from equities and notwithstanding the concerns raised above, it would be better to avoid any extrapolation and observe the impact of trading fee rebates directly on ETPs.

We acknowledge that market capitalization and trading volume are not meaningful characteristics driving the trading behavior of ETPs. We suggest that regulators look through the ETP structure and instead focus on the market capitalization and trading behavior of the underlying securities. An examination of the underlying securities held within the ETP structure should permit the application of the matched pairs approach.

Regarding the concern that ETPs tracking similar holdings may be viewed as substitutes for investment, hedging and trading purposes, we argue that the impact of trading fee rebates on such perfect substitutes is precisely what regulators should be studying.

Concluding Remarks

In financial markets, it is rational to assume that incentives drive behaviour. Trading fee rebates are an economic incentive designed to subsidize the provision of liquidity on a marketplace. Well-structured incentives may contribute to better execution outcomes for investors. Similarly, less well-structured incentives may lead to suboptimal outcomes for investors. If, at the conclusion of the pilot, it is found that trading fee rebates promote better outcomes for investors, then we would generally be supportive of the maker-taker pricing regime and the status quo. If, however, it is found that trading fee rebates have no observable benefit on market quality or execution quality, then we would encourage regulators to consider such data along with the agency concerns referenced in the IOSCO report and to act on such empirical evidence.[4]

* * * * *

We thank you for the opportunity to provide these comments. We would be happy to address any questions you may have and appreciate the time you are taking to consider our points of view.

Yours truly,

Brent Robertson
Managing Director
Trading

Robert Gouley

[4] IOSCO, *Trading Fee Models and their Impact on Trading Behaviour: Final Report*, Dec, 2013, available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD430.pdf

TD Securities
TD Bank Group
Ernst & Young Tower
222 Bay Street, 7th Floor
Toronto, Ontario M5K 1A2

Susan Greenglass
Director, Market Regulation
Ontario Securities Commission
20 Queen Street West
Suite 1903, Box 55
Toronto, Ontario M5H 3S8
marketregulation@osc.gov.on.ca

via e-mail

January 29, 2019

Re: CSA Staff Notice and Request for Comment 23-323 Trading Fee Rebate Pilot Study

Dear Sirs and Mesdames:

TD Securities Inc. welcomes the opportunity to comment on CSA Staff Notice and Request for Comment 23-323 - Trading Fee Rebate Pilot Study.

TD Securities Inc. is a leading securities dealer in Canada and a top ranked block trader in Canadian equities and options based on both dollar value and shares/contracts traded. TD Securities Inc. also acts as the executing dealer for TD Waterhouse, the second largest brokerage firm in Canada.

TD Securities Inc. Supports the Pilot Study

We are in support of the proposed rebate study in Canada and believe the academics helping to design the "Made in Canada" features have done a tremendous job to date. The academics spoke to the industry at large, solicited feedback and listened to users in crafting the final proposal.

The CSA Trading Fee Rebate Pilot Study Request for Comment comes at an interesting time for Canadian participants. For close to a year, Canadians have been spectators to the contentious industry debate south of the border over the SEC's request for comment for a US access fee pilot. As such, we have an idea where various participants sit in terms of the need for the pilot.

Industry responses to the US pilot proposal were mostly divided along business lines with commercially motivated parties opposed to a proposal that could negatively impact the bottom line – see most exchanges and market makers. Institutional investors were unanimously in favor of the study.

It is likely that Canadian participants will also be divided along business lines and that some marketplaces and market makers might suggest waiting until after the US study concludes to consider a "Made in Canada" response. At the very least, these participants will encourage the CSA to slow down and not try to get ahead of the US on non-inter-listed names as suggested. We hope that the CSA will see through commercial interests and move forward with its study on its own terms.

The SEC deserves a lot of credit for weeding through the noise from commercially motivated commenters and honing in to side with the non-conflicted institutional asset owner and asset manager point of view. While some institutional investor respondents had minor technical differences in views, the overarching opinion was "let's study the impact of rebates to see if behavior is impacted."

While the issue of routing conflict is cited most often as the driver of this study, we believe that market structure simplification will be the most important benefit of a zero rebate equity trading environment.

Today's Canadian equity market structure is complex. Commercially motivated marketplaces design market models for bespoke user needs, mostly intermediaries. These marketplaces add features that motivate parties to route the flow that intermediaries want to see and discourage order flow from other parties (see non-symmetric speed bumps and inverted fee structures).

No one can blame a commercially motivated marketplace for designing solutions catered to its customers. It is just that its customers are most often intermediaries and not institutional investors.

Taken in sum, the end market structure is overly complex and results in un-necessary intermediation, an implicit tax that is paid for in part by institutional investors with child orders that must navigate across this complex landscape to find the other side of its trades.

One aspect of the debate over the pilot that has not received a lot of attention is the fee structures that marketplaces will introduce for stocks in the zero rebate bucket.

With commercial interests in mind, we expect the main exchange providers with multiple marketplaces to set one market at zero cost to providers of liquidity and a few mils charge for the takers. Meanwhile, for its other marketplaces, access to liquidity will be free and the provider will be charged a small fee.

Importantly, the difference between fee structures across venues for zero rebate stocks will be somewhere in the three to four cents per 100 share range (or three or four one hundredths of a cent), a far cry from the existing difference of close to ½ cent.

This outcome will significantly reduce the likelihood that natural investor orders providing liquidity will un-necessarily reside on marketplaces that are not preferenced by liquidity takers because of economics. Today intermediaries are required to link together these marketplaces and charge a rent for the service provided.

With rebate capture no longer a priority for short term intermediaries, we expect shorter order book queues that will mean greater passive fill rates for natural investor orders. This should result in better execution quality.

If we are correct that un-necessary intermediation will be reduced without rebate incentives, then overall market volumes will decline. However, market liquidity will not be impacted. Instead, there will be less steps needed for two parties interested in a risk transfer to complete this process. Given that marketplaces get paid by volume of trade and more volume makes data products more valuable and intermediaries long market structure benefit from complexity, this could explain the reluctance of these parties to embrace the rebate study.

One area of debate in the industry is the impact on spreads in a market structure world with no rebates. On the one hand, with natural orders in the book that want to trade at the posted market and previously sat at the back of a long queue, there is no guarantee spreads will widen as these orders remain.

On the other hand, even if spreads do widen marginally, the resulting bid-ask will represent a truer market in the absence of quotes pregnant with rebates that are earned by agents or intermediaries and not the end investor.

Specific Comments on Proposal

We support the design of the study and will trust the judgement of the academics to pick pairs of securities for the zero rebate bucket and control group and to determine the proper metrics for analysis.

We like the breadth of the study which was widened after feedback from participants.

We support the idea that the study for non-inter-listed stocks can start ahead of the US pilot.

We like the fact that there will not be an issuer opt out.

Finally, we are pleased to see the level of coordination between the SEC and CSA when it comes to Canadian based inter-listed securities, the lifeblood of our market.

That said we sure hope the SEC promise to place all Canadian inter-listed securities in the control group does not encourage Canada to sit on the sidelines and watch the US study. Fear mongering that market quality will worsen for the zero rebate stocks is overblown.

We stress again that the views of the un-conflicted institutional investor community with agency best execution concerns needs to be considered first and foremost by Canadian regulators. This was the case with the SEC in the US and it should also be the case for the CSA in Canada.

Important Aspects of Study Worth Monitoring

We have concern that some third party vendors providing execution management services to dealers will not be able to put in routing guidelines at the single stock level. This change will be essential in order to differentiate control group routing from routing of zero rebate stocks. Without industry adoption during the pilot study, the quality of data for academics to study will be weakened.

Answers to Specific Questions

1. We believe the definition of medium liquid is appropriate and support the much broader nature of the study than was first suggested by Canadian academics.

2. We support starting the Canadian study for non-inter-listed names ahead of the US in order to provide academics with more data for analysis.

3. The current market making programs generally offer three types of incentives to market makers:

    a. The standard rebate available to all market participants
    b. An additional rebate incentive for market makers only (generally 2 – 8 mils above the standard rebate), or a reduction in active fees
    c. A fixed monthly payment per security based on performance goals.

    The pilot program will eliminate the standard rebate available to all market participants. We think this treatment should also apply to market makers to clearly separate the control group from the test group. If market makers continued to receive the standard rebates, then it would create a two-tiered market, blur the impact of the study, and potentially create cases where the active fee paid on a trade was dependent on whether the counterparty was a market maker or not.

We are supportive of leaving the additional rebate incentives and active fee discounts in place to encourage market makers to provide liquidity. We suggest these incentive rebates (or fee discounts) be capped at an 8 mil rebate to reflect current market practices. Given that we expect marketplaces to charge access fees in the low single digits, then trades with market makers earning higher rebates would be a cost to marketplaces. This is the case in some instances today with existing market maker incentive programs.

We are also supportive of leaving the fixed monthly performance payments in place as these are not volume based and are unrelated to make/take fees.

We recommend that the spread obligations for existing market making programs be reset on the pilot launch date to give market makers an opportunity to recalibrate to the new fee economics.[1]

Bottom line – market maker programs should not be utilized by certain participants to arbitrage the structure of the rebate study.

4. We believe the time horizons suggested are reasonable.

5. We believe that any analysis that shows the difference in queue length for resting orders as a result of comparisons of like rebate vs non-rebate stocks will be valuable information. We hope the academics will also be able to analyze the type of order flow in each queue and how it changes over time from placement of a natural investor order to execution.

6. We support the use of the metrics discussed already.

7. We are sympathetic to the concerns of ETF issuers that placement of specific ETFs in buckets different from competing like products might change the competitive dynamics between two products. However, given the decision by the

---

1. *Please note that TD Securities Inc. acts as a Registered Trader for several issuers likely to be included in the study.*

SEC to include ETFs randomly, we believe Canada should follow suit and also include ETFs in the pilot study. Our concern is that without ETFs in the study, this could prompt regulators to keep rebates intact for ETFs and thus create a two-tiered market structure for fees, one for stocks and another with rebates for ETFs.

Conclusion

We commend the CSA and its academic partners for its work in putting together the pilot study on access fees. The proposal is comprehensive and reflects feedback from industry. Most importantly, it is aligned with the views of the one non-conflicted party in today's equity market ecosystem. That is the institutional investor.

Thank you for the opportunity to comment on this important proposal and I would be happy to answer any follow up questions.

Regards,

Peter Haynes
Managing Director
TD Securities Inc.
416-944-5385
Peter.haynes@tdsecurities.com

Global Asset Management

RBC Global Asset Management Inc.
155 Wellington Street West, 22nd Floor
Toronto, Ontario, Canada M5V 3K7

February 7, 2019

VIA EMAIL

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission, New Brunswick
Superintendent of Securities, Government of Prince Edward Island
Nova Scotia Securities Commission
Office of the Superintendent of Securities, Service NL (Newfoundland and Labrador)
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon

c/o The Secretary
Ontario Securities Commission
20 Queen Street West
22nd Floor
Toronto, Ontario M5H 3S8, and

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, rue du Square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal, Québec H4Z 1G3

Dear Sirs/Mesdames:

Re: CSA Staff Notice and Request for Comment 23-323 *Trading Fee Rebate Pilot Study* (the "Pilot Study")

RBC Global Asset Management Inc. ("RBC GAM" or "we") is a wholly owned subsidiary of Royal Bank of Canada and provides a broad range of investment management services and solutions to investors across Canada, including through a variety of investment funds. As at October 31, 2018, RBC GAM had over $311 billion in assets under management.

RBC GAM strongly supports the Pilot Study and commends the Canadian Securities Administrators (CSA) for its thoughtful and thorough work on the Pilot Study. We applaud the CSA for coordinating with the United States Securities and Exchange Commission (the SEC) on this important initiative and encourage it to continue to collaborate/coordinate, where possible, with US, UK and EU regulators, in whose jurisdictions RBC GAM and other Canadian asset managers also have significant operations or invest.

Policymakers, market participants, academics and other stakeholders continue to raise questions about the impact of marketplace pricing on complexity, instability, capacity and conflicts of interest in equity markets. From RBC GAM's perspective as an institutional investor, marketplace pricing has become unnecessarily complex. We are concerned that the proliferation of exchange pricing variables contribute to a number of incentives that result in negative outcomes for our clients. These outcomes include reduced transparency, increased complexity and heightened conflicts of interest between brokers and clients with regard to routing of client orders. Additionally, marketplace pricing changes, which require technology adjustments by marketplaces and brokers, can elevate operational risks that could cause market "glitches" and other risks to market stability.

A number of variables can impact fees charged or rebates offered by a marketplace for a given order. Some examples of these variables include: the marketplace order type used, the listing venue of the security being traded, whether the order added or removed liquidity, the price of the security, whether the order was hidden or displayed, whether the order was sent to the marketplace's opening or closing auction facility, whether indications of interest (IOIs) were sent, the use of various marketplace routing strategies and whether price improvement was received. Such complexity concerns us as we believe it creates a potential conflict of interest when a broker decides how to route a client order. A decision to route orders which is unduly affected by fee and rebate considerations may conflict with a broker's duty to route orders in a manner that results in the best outcome for its clients.

Capping or eliminating the practice of marketplaces competing on the basis of offering rebates for orders could potentially incentivize marketplace competition on the basis of price transparency, market stability, efficiency and best execution.

Our responses to the questions in Appendix II of the Pilot Study can be found below:

Question 1 - We propose to define a security as medium-liquid if it trades at least 50 times a day on average and more than $50,000 on average per trading day over the past month. Do you believe that this definition is appropriate? If not, please provide an alternative definition and supporting data, if available, to illustrate which securities your definition captures.

Response - We agree with the decision to include in the Pilot Study both "highly liquid" and "medium-liquid" securities.

We agree with the proposed definition of a security as "medium-liquid" if it trades at least 50 times a day on average and more than $50,000 on average per trading day over the past month. We reviewed recent trading statistics of securities listed in Canada and found that the proposed minimum average per trading day volume is sufficient to cover what we consider "medium-liquid" securities.

Question 2 - We propose to introduce the Pilot in two stages, with non-interlisted securities first, followed by interlisted securities. Do you believe that such staggered introduction will cause material problems for the statistical analysis and the results of the Pilot? If so, please describe your concerns in detail.

Response - We also agree with your intent to introduce the Pilot Study in two stages, with non-interlisted securities first, followed by interlisted securities. Having said that, because the second phase of the Pilot Study will be co-ordinated with the Proposed SEC Transaction Fee Pilot Study, and therefore there is less flexibility on when that phase of the Pilot Study will begin, we are concerned whether there will be sufficient time for the non-interlisted securities phase of the Pilot Study to collect useful information. On that basis, we ask the CSA to consider conducting the non-interlisted phase of the study after the interlisted securities phase is complete.

In our view, a pilot of at least one year and no more than two years will ensure that sufficient data is collected over time and that the results are not unduly influenced by unusual market activity and events.

Question 3 -Several Canadian marketplaces offer formal programs that reward market makers with enhanced rebates in return for liquidity provision obligations. On the one hand, such programs may benefit liquidity. One the other hand, one of the primary objectives of the Pilot is to understand if rebates cause excessive intermediation. In your opinion, should exchanges be allowed to continue using rebates or similar arrangements for market making programs during the Pilot? Do you believe any constraints on such programs during the Pilot to be appropriate?

Response - The prohibition on the payment of trading fee rebates by marketplaces with respect to trading in the selected sample securities is an essential feature of the Pilot Study. As the proposal states that its purpose is to, "study the effects of prohibiting rebates, the design relies on only this prohibition", only by having a test group where no rebates are permitted (and where the impact of prohibiting rebates can be isolated) can the Pilot Study gather useful data about the impact of rebates on brokers' order routing decision-marking, segmentation of orders, excessive intermediation and their impacts on the best execution of client orders. We applaud the CSA's decision to conduct this study and agree with the rationale for applying a rebate prohibition to the selected sample securities for the duration of the Pilot Study.

We expect that studying the effect of no-rebates on the test group will produce data and analysis that serve the core purpose of the Pilot Study: to assess the potential conflicts of interest and impact on execution quality associated with marketplaces competing for order flow by offering trading fee rebates and introducing different marketplaces with contrasting rebate models such as "maker-taker" and "taker-maker".

Question 4 - We propose to compute price impacts at the one- and five-second horizons. Do you believe that we should consider other horizons? If so, which ones?

Response - In addition to the one- and five-second horizons being proposed by the Pilot Study, we recommend including 15 second and 30 second horizons as well. We believe that additional data points will provide more granularity in comparing different options.

Question 5 - We propose to compute time-to-execution for limit orders posted at the CBBO prices or improving these prices. Do you believe that we should consider different price levels? If so, which ones? Please provide supporting data and analysis, if available, to demonstrate the empirical importance of order postings at other levels.

Response – We believe that computing time-to-execution for limit orders posted at the CBBO is sufficient.

Question 6 - We propose a number of market quality metrics. Do you believe that we should consider additional metrics? If so, please outline these metrics and provide supporting data and analysis, if available, to demonstrate their empirical importance.

Response - The market quality metrics proposed in the Pilot Study are valid. We especially agree that the following metrics represent a good gauge of market quality: quoted liquidity, price efficiency, intra-day volatility, effective spread and implementation shortfall. We recommend analyzing one other element of the market quality: the level of participation of intermediaries that provide liquidity to the Canadian marketplace. For example, especially in the "highly-liquid" sample securities, whether the absence of rebates reduced the number of intermediaries and whether that had any negative impact on market quality.

Question 7 - As such, in relation to ETP inclusion, we ask that market participants consider the following questions: Given the challenges that ETP matching presents, can the goals of the Pilot be achieved without including ETPs in the sample? If ETP inclusion is important, can you propose a way to construct a matched sample that addresses the concerns identified above?

Response - none

Conclusion of the Pilot Study

Should the Pilot Study conclude with results that show that fees and rebates are adversely affecting order routing, execution quality and market quality, we believe that the CSA should consider a number of reforms including the substantial limitation, if not prohibition of, rebates for more liquid securities where data supports the conclusion that liquidity incentives are no longer necessary.

We request that the audience of the confidential data that in this study (including any detailed conclusions) be strictly limited to the Academics conducting the Pilot Study and regulators, and that market participants or other third parties do not access client trading information that may include their proprietary data pertaining to their trading strategies.

The CSA proposal for a trading fee rebate pilot study is a well thought out, logical and data-driven exercise aimed at making the Canadian market more transparent and efficient. RBC GAM supports the objectives of the Pilot Study, appreciates the opportunity to provide comments and encourages continued progress in finalizing and implementing the Pilot Study. We are available to provide the CSA with additional information on the comments we have submitted as it moves forward.

Sincerely,

RBC Global Asset Management Inc.

Daniel E. Chornous, CFA
Chief Investment Officer

The Canadian Advocacy Council for Canadian CFA Institute Societies
ADVOCATING THE CFA INSTITUTE'S CODE OF ETHICS AND STANDARDS

February 12, 2019

BY EMAIL

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission, New Brunswick
Superintendent of Securities, Government of Prince Edward Island
Nova Scotia Securities Commission
Office of the Superintendent of Securities, Service NL (Newfoundland and Labrador)
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Department of Justice, Government of Nunavut

The Secretary
Ontario Securities Commission
20 Queen Street West
22nd Floor
Toronto, Ontario M5H 3S8
Email: comments@osc.gov.on.ca

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, Square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal (Québec) H4Z 1G3
Email: consultation-en-cours@lautorite.qc.ca

Dear Sirs/Mesdames:

Re: CSA Staff Notice and Request for Comment 23-323 Trading Fee Rebate Pilot Study (the "Pilot Study")

The Canadian Advocacy Council[1] for Canadian CFA Institute[2] Societies (the CAC) appreciates the opportunity to provide general comments on the Pilot Study that would apply temporary pricing restrictions on marketplace transaction fees applicable to trading in certain securities, as well as respond to specific questions posed in the CSA Staff Notice.

[1] The CAC is an advocacy council for CFA Societies Canada, representing over 17,000 Canadian charterholders, of the 12 Member Societies across Canada. The council includes investment professionals across Canada who review regulatory, legislative, and standard setting developments affecting investors, investment professionals, and the capital markets in Canada. Visit www.cfacanada.org to access the advocacy work of the CAC.

[2] CFA Institute is a global, not-for-profit professional association of over 166,000 investment analysts, advisers, portfolio managers, and other investment professionals in 163 markets, of whom more than 159,000 hold the Chartered Financial Analyst® (CFA®) designation. The CFA Institute membership also includes 152 member societies in 74 markets. For more information, visit www.cfainstitute.org.

We are supportive of the collaborative, data driven approach proposed by the Canadian Securities Administrators (CSA) to study the impact of trading fee rebates on order routing behavior, market quality and execution quality measures. In our view, the Pilot Study has been reasonably designed and is well thought out. Capping or eliminating rebates could potentially reduce marketplace incentives to structure order types and pricing tiers in ways that encourage excessive complexity, fragmentation and exacerbate agency concerns between investors and their brokers. Below are comments on what we believe to be the key aspects of the Pilot Study.

Scope, timing and Duration

We generally agree with regulators regarding the timing, duration, and scope of the Pilot Study. Given the interconnected and porous nature of Canadian capital markets, we believe that it is reasonable to align the timing and duration of the Canadian pilot with the US pilot for interlisted securities to prevent any unintended consequences disproportionately harming Canadian liquidity.

We see no issue with a proposed staggered start date for non-interlisted securities and we concur with regulators that such an approach may help to mitigate the potential for market-wide confounding events. However, because the second phase of the Pilot Study is going to be co-ordinated with the SEC study, we would suggest starting as soon as possible to allow for a sufficient time for the non-interlisted securities study.

As stated in the CSA Staff Notice, highly liquid securities account for more than 90 percent of the TSX market capitalization and thus the universe of "highly liquid" and "medium liquid" securities is sufficiently broad in our view, without any contrary evidence being presented. Such a scope should create a representative sample of securities. By leveraging IIROC's Surveillance Technology Enhancement Platform (STEP), we believe that regulators and researchers ought to be able to capture a consistent, cross sectional view of all trading, occurring on all exchanges and ATS marketplaces.

Pilot Design and Prohibition of Rebates

We would suggest adding a volatility criteria (specifically, intraday volatility) when applying the matched pairs study design to group securities. Market capitalization, trading volume and volatility are all meaningful drivers of transaction cost estimates in widely used and acceptable models, and taken together, such drivers should provide a reasonable representation of securities trading behaviour.

As proposed, the Pilot Study's intent to prohibit the payment of trading fee rebates by marketplaces with respect to trading in selected securities is an essential feature of the study. It is only by having a test group where no rebates are permitted and where the impact of prohibiting rebates can be isolated that the Pilot Study can gather useful data about the impact of rebates on order routing behavior, execution quality and market quality.

Empirical Measures

As proposed, the purpose of the Pilot Study is to better understand how the prohibition of rebates may affect dealers' routing practices, and standard measures of market quality and execution quality. We also suggest observing how the overall degree of intermediation, particularly across liquid securities, impacts investors.

We believe that understanding the impact of rebates on opportunity cost measures such as the delay cost of unfilled trades should also be considered with equal emphasis. More specifically, from an institutional investors' perspective, often the costliest order is the order that is delayed, or never completed at all. We encourage regulators to examine passive order placement and to measure the delay cost of marketable, passive orders that are canceled or subsequently repriced.

You will find below our response to each question set forth in Appendix II: Questions for Market Participants to the CSA Staff Notice. For ease of reference, we have reproduced each question in italics preceding the applicable comment.

1. We propose to define a security as medium-liquid if it trades at least 50 times a day on average and more than $50,000 on average per trading day over the past month. Do you believe that this definition is appropriate? If not, please provide an alternative definition and supporting data, if available, to illustrate which securities your definition captures.

After reviewing the recent trading statistics of securities listed on major Canadian stock exchanges, and without opposing evidence, we agree with the proposed definition of a security as medium-liquid if it trades at least 50 times a day on average and more than $50,000 on average per trading day over the past month.

2. We propose to introduce the Pilot in two stages, with non-interlisted securities first, followed by interlisted securities. Do you believe that such staggered introduction will cause material problems for the statistical analysis and the results of the Pilot? If so, please describe your concerns in detail.

No. We support the staggered start date between Canadian listed and interlisted securities. As stated above, the Pilot Study should begin as soon as possible to allow sufficient time to study non-interlisted securities prior to the start of the SEC study.

3. Several Canadian marketplaces offer formal programs that reward market makers with enhanced rebates in return for liquidity provision obligations. On the one hand, such programs may benefit liquidity. One the other hand, one of the primary objectives of the Pilot is to understand if rebates cause excessive intermediation. In your opinion, should exchanges be allowed to continue using rebates or similar arrangements for *market making programs during the Pilot? Do you believe any constraints on such programs during the Pilot to be appropriate?*

We expect that studying the effect of no-rebates on the test group will produce data and analysis that serve the core purpose of the Pilot Study: to assess the potential conflicts of interest and impact on market quality which comes from transaction-based fees and rebates.

We believe that any liquidity or market making incentive programs that are effectively similar to rebates should be constrained during the duration of the Pilot Study. In particular, we remain concerned that firms qualifying for market maker incentives benefit in ways that materially impact the economies of their agency-facing businesses and overall order routing behaviours. While we understand the goals of promoting market making by market makers, in practice, the implementation may be difficult and may undermine the utility of the Pilot Study.[3]

4. We propose to compute price impacts at the one- and five-second horizons. Do you believe that we should consider other horizons? If so, which ones?

We would recommend 15 second and 30 second horizons as well as those proposed, and would welcome the examination of longer horizons for inclusion in the event that such addition yields meaningful insight or observations of specific behaviours, especially with respect to those securities that trade less frequently, such as those deemed medium-liquid in the study design.

5. We propose to compute time-to-execution for limit orders posted at the CBBO prices or improving these prices. Do you believe that we should consider different price levels? If so, which ones? Please provide supporting data and analysis, if available, to demonstrate the empirical importance of order postings at other levels.

We believe that computing time-to-execution for limit orders posted at the CBBO is sufficient. It would also be interesting to examine time-to-execution for CBBO +/- 1 and 2 price levels either absolutely or relatively in order to determine any informational impact of limit orders off of CBBO.

6. We propose a number of market quality metrics. Do you believe that we should consider additional metrics? If so, please outline these metrics and provide supporting data and analysis, if available, to demonstrate their empirical importance.

We encourage regulators to measure the delay cost of marketable, passive orders that are canceled or subsequently repriced.

---

[3] Letter from Ty Gellasch, Healthy Markets Association, to Mr. Brent J. Fields, Secretary, Securities and Exchange Commission, May 24, 2018, available https://www.sec.gov/comments/s7-05-18/s70518-3704495-162465.pdf

7. We have had extensive discussions with a number of market participants on whether to include exchange-traded products (ETPs) in the Pilot, and some participants suggest that such an inclusion is warranted. Nevertheless, others point out that trading characteristics of ETPs are substantially different from those of corporate equities and including ETPs will present significant challenges in the matching stage and will likely confound the results in the analysis stage. These participants and our own research identify the following concerns:

• most liquidity in ETPs is determined and provided by contracted market makers, and the ETP creation/redemption process represents its own source of liquidity;
• matching characteristics that we propose to use for corporate equities do not have the same meaning for ETPs. For instance, ETP fund size is not a relevant metric, and ETP trading volume is usually not correlated with quoting activity or liquidity;
• spillover effects of two types may confound the results. First, liquidity in ETPs relates to liquidity of the underlying basket of securities, and if the basket is significantly affected by the Pilot, the ETP will be affected too. Second, ETPs that follow the same baskets may be viewed not only as good matches, but also as substitutes for investment, hedging, and trading purposes. If one of them is selected to be treated, and the other is not, market participants may move between products, potentially confounding the results of the Pilot.

The above-mentioned concerns make finding matched ETP pairs a uniquely challenging task. To the best of our knowledge, there is no established procedure for matching ETPs to study their trading costs. As such, in relation to ETP inclusion, we ask that market participants consider the following questions: Given the challenges that ETP matching presents, can the goals of the Pilot be achieved without including ETPs in the sample? If ETP inclusion is important, can you propose a way to construct a matched sample that addresses the concerns identified above?

We believe that ETPs should be included, and that the exclusion of ETPs from the Pilot Study would be problematic. If the empirical evidence gathered from the Pilot Study suggests that regulators should take a policy action on trading fee rebates, regulators will need to extrapolate the results observed from equities and apply them to ETPs. The trading behavior of ETPs is similar, but also distinct from equities and notwithstanding the concerns raised above, it would be better to avoid any extrapolation and observe the impact of trading fee rebates directly on ETPs.

We acknowledge that market capitalization and trading volume are not meaningful characteristics driving the trading behavior of ETPs. We suggest that regulators look through the ETP structure and instead focus on the market capitalization and trading behavior of the underlying securities. An examination of the underlying securities held within the ETP structure should permit the application and extension of the matched pairs approach to ETP securities.

Regarding the concern that ETPs tracking similar holdings may be viewed as substitutes for investment, hedging and trading purposes, we argue that the impact of trading fee rebates on such perfect substitutes is precisely what regulators should be studying.

Concluding Remarks

The CAC believes, and the CFA Institute Code of Ethics and Standards of Professional Conduct provides, that economic agents should place the interests of their clients before their own.[4] Similarly, if brokers are truly adhering to their best execution obligations, brokers should be prioritizing the best interests of their clients. While we are generally supportive of the proposed Pilot Study, we also query if a broader best execution review may be appropriate following this study and with its results available for examination of broker behaviours.

We thank you for the opportunity to provide these comments. We would be happy to address any questions you may have and appreciate the time you are taking to consider our points of view. Please feel free to contact us at cac@cfacanada.org on this or any other issue in future.

(Signed) *The Canadian Advocacy Council for*
Canadian CFA Institute Societies

The Canadian Advocacy Council for
Canadian CFA Institute Societies

---

[4] CFA Code of Ethics and Standards of Professional Conduct, Section III A. Loyalty, Prudence, and Care, available online at https://www.cfainstitute.org/-/media/documents/code/code-ethics-standards/code-of-ethics-standards-professional-conduct.ashx

Neo Exchange Inc.
155 University Avenue, Suite 400
Toronto, Ontario M5H 3B7
T 416.933.5900

BY EMAIL

February 20, 2019

The Secretary
Ontario Securities Commission
20 Queen Street West, 22nd Floor
Toronto, Ontario M5H 3S8
Fax: (416) 595-8940
e-mail: comments@osc.gov.on.ca

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, rue du Square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal (Québec) H4Z 1G3
Fax : 514-864-6381
Email: Consultation-en-cours@lautorite.qc.ca

Re: Proposed Trading Fee Rebate Study

We thank the CSA for providing us with the opportunity to comment on Staff Notice and Request for Comment 23-323 *Trading Fee Rebate Pilot Study* (the "Proposed Pilot"), published on December 18, 2018.

We are in support of the Proposed Pilot, because we believe that rebates by their nature cause potential market quality issues. Rebates create conflicts of interest between dealers and their clients, incentivize marketplaces to launch multiple order books with different fee levels to attract specific types of flow, encourage unnecessary intermediation and reduce the opportunity for natural investors' orders to interact directly with each other.

All of this has led to distortions in the Canadian market structure to the detriment of investors and a prisoner's dilemma situation for marketplaces and dealers seeking to address the issues, but who must instead follow suit to be competitive. NEO has been in this position, most notably in moving one of our trading books (NEO-N) from a take-take fee structure at launch to an inverted fee structure later that year.

We expect that an environment without rebates would result in less unnecessary intermediation, more reliable liquidity provision, cost reductions, and marketplaces and dealers competing on the basis of the quality of execution.

We do acknowledge, however, that rebates have been a fixture of the current market structure for well over a decade and that the consequences – intended and unintended – of eliminating them need to be fully understood. Therefore, in our view the Proposed Pilot represents a sensible next step.

In addition, we would like to acknowledge that, although we are supportive of the Proposed Pilot, we are still proponents of better order routing disclosure. We believe the most effective way to tackle conflicts of interest is to focus on best execution and to ensure investors are able to quantitatively assess their dealers' performance, and for dealers to be able to assess marketplaces, using a standardized framework. We believe the CSA should revisit their list of priorities, and consider prioritizing implementing requirements that would provide useful information to investors, leveraging lessons learned in the US in the context of the 605/606 reports.

Specific questions raised in the proposal

We would like to take this opportunity to comment on two specific questions raised in the proposal.

Should the pilot apply to market making programs?

In our opinion, the answer to this should be unequivocally yes. Any kind of payment by marketplaces to market participants should be included as exceptions will compromise the integrity of the study. If there is concern that market makers would not provide liquidity if not allowed to take advantage of rebates, then the incentives available to them should be carefully reviewed and, potentially, changed for the duration of the study.

Should the pilot include ETPs?

As pointed out in the proposal, the trading characteristics of ETPs are very different from those of corporate securities. Given the role that market makers play in this segment and how they provide liquidity, we believe that rebates should fundamentally not be necessary, as exchange fees are already taken into account in the quoted spread. We are concerned that it would be difficult to infer any conclusions about ETPs based on the results from corporate securities and, therefore, if ETPs are not included, could leave only the alternatives of retaining rebates for the foreseeable future or the setting up a separate pilot for ETPs. Neither would, in our view, be beneficial. Although we are sympathetic to some of the concerns expressed by issuers regarding competitive disadvantages, we believe that through a thoughtful selection process those concerns can be alleviated.

Finally, we see no challenges with respect to the timeline of the Proposed Pilot. Making the trading fee adjustments required for the affected securities is a straightforward process from the perspective of the Exchange. Further, we are supportive of starting the pilot with non-interlisted securities prior to any implementation of a pilot in the US, especially in light of the potential timing issues caused by the lawsuits launched by the US exchanges.

Please don't hesitate to contact us if you have any questions regarding the above.

Yours truly,

"*Cindy Petlock*"

Cindy Petlock
Chief Legal Officer

"Joacim Wiklander"

Joacim Wiklander
Chief Business Officer

BLACKROCK®

BlackRock Asset Management Canada Limited
161 Bay Street
Suite 2500, P.O. Box 614
Toronto, ON
M5J 2S1

February 22, 2019

Submitted via electronic filing: comments@osc.gov.on.ca; consultation-en-cours@lautorite.qc.ca

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission, New Brunswick
Superintendent of Securities, Government of Prince Edward Island
Nova Scotia Securities Commission
Office of the Superintendent of Securities, Service NL (Newfoundland and Labrador)
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Department of Justice, Government of Nunavut

Attention:
The Secretary
Ontario Securities Commission
20 Queen Street West
22nd Floor
Toronto, Ontario M5H 3S8

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, rue du Square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal (Québec) H4Z 1G3

Re: CSA Staff Notice and Request for Comment 23-323 – Trading Fee Rebate Pilot Study ("Pilot")

Dear Sirs/Mesdames:

A. About BlackRock

BlackRock Asset Management Canada Limited ("**BlackRock Canada**") is an indirect, wholly-owned subsidiary of BlackRock, Inc. ("**BlackRock**" or "**we**") and is registered as a portfolio manager, investment fund manager and exempt market dealer in all the jurisdictions of Canada, a commodity trading manager in Ontario, and as an adviser under *The Commodity Futures Act* (Manitoba).

BlackRock is one of the world's leading asset management firms, managing assets for clients in North America and South America, Europe, the Middle East, Africa, Asia and Australia. Our client base includes corporate, public, multi-employer pension plans, insurance companies, mutual funds and exchange-traded funds, endowments, foundations, charities, corporations, official institutions, banks and individuals around the world.

B. <u>General Observations</u>

As we noted in our *ViewPoint* on U.S. equity market structure, the magnitude of trading fees and rebates relative to other transaction costs creates a conflict of interest for brokers in routing client orders and perpetuates market fragmentation and complexity.[1] We believe the same concerns are present in Canadian equity market structure. BlackRock believes that lowering fees and rebates would reduce their distortive effect on order routing, price transparency and market quality. Furthermore, this may mitigate fragmentation and ease burdens for investors by leading to a reduction in marketplace complexity.[2]

BlackRock welcomes a study of the impact of trading fees and rebates in Canada and commends the Canadian Securities Administrators ("**CSA**") for its ongoing efforts to foster fair and efficient capital markets. We strongly support the objectives of the Pilot and believe that a study would provide policymakers with valuable evidence for further rule making. We also applaud the CSA and the US Securities and Exchange Commission for the degree of coordination demonstrated in their handling of inter-listed securities to minimize any impact from disparate fee / rebate regimes.

Beyond this overall endorsement, we present additional perspective on specific aspects of the Pilot in greater detail below for your consideration.

C. <u>BlackRock's Responses</u>

Generally, we believe that exchange-traded products ("**ETPs**") should be subject to the same final ruleset on trading fees and rebates as equity securities, to the extent that such regulations appropriately contemplate the distinctive nature of ETPs. However, BlackRock believes that ETPs should be excluded from the Pilot unless similar or lookalike products can be included in an equitable or consistent manner for purposes of the Pilot. The ETP industry is fiercely competitive with multiple issuers offering comparable products tracking similar underlying benchmarks. Given the efficacy of rebates and incentives in attracting liquidity and promoting price discovery, a fundamental concern is that market participants will move their investment activity between substitutable ETPs which are placed in different test groups. In addition to creating a competitive disadvantage across different products, this will confound and likely exacerbate the results of

---

[1] BlackRock, *ViewPoint – US Equity Market Structure: An Investor Perspective*, (Apr. 2014), available at http://www.blackrock.com/corporate/en-us/literature/whitepaper/viewpoint-us-equity-market-structure-april-2014.pdf.
[2] BlackRock, Letter from Richie Prager, Head of Trading and Liquidity Strategies, to SEC Chair Mary Jo White (Sep. 12, 2014), available at: https://www.blackrock.com/corporate/literature/publication/blk-equity-market-structure-letter-sec-091214.pdf.

the Pilot. Further, as highlighted in the proposal, the matching characteristics used to construct test groups do not conform well for ETPs due to their intrinsic nature and mechanisms such as the creation/redemption process.[3] The validity of any findings may be spurious if the Pilot does not properly control for selection bias between the treatment and control samples.

BlackRock supports the CSA's proposal to focus the analysis on highly liquid securities. This is the segment of the Canadian market where dealer intermediation is most elevated and the distortive effect of fees and rebates should be mitigated. However, we also recognize that for illiquid securities the benefit provided by incentives may outweigh any negative impact. Rebates may improve market quality for thinly-traded securities by attracting liquidity and compensating market makers for exposing their orders to information leakage and adverse selection. The optimal market structure may not be a "one-size-fits-all" approach, but a tiered model where the level of fees and rebates depends upon the liquidity, price or bid-ask spread of a security. Further, incentives which are higher than existing rebates may be warranted to enhance liquidity and market quality for the most illiquid segment of the market.

D. Conclusion

BlackRock thanks the CSA for this opportunity to provide input upon and express our support for the trading fee rebate pilot. We would be pleased to make appropriate representatives available to discuss any of these comments with you at your convenience.

Sincerely,

"Margaret Gunawan"

Margaret Gunawan
Managing Director, Head of Canada Legal & Compliance

"Hubert De Jesus"

Hubert De Jesus
Managing Director, Global Head of Market Structure and Electronic Trading

---

[3] "[The] matching characteristics that we propose to use for corporate equities do not have the same meaning for ETPs." CSA Staff Notice 23-323, Trading Fee Rebate Pilot Study. December 2018, available at
http://www.osc.gov.on.ca/en/SecuritiesLaw_csa_20181218_23-323_trading-fee-rebate-pilot-study.htm

AGF

AGF Investments Inc.
Toronto-Dominion Bank Tower
66 Wellington Street West, 31st Floor
Toronto, ON M5K 1E9

BY EMAIL: comments@osc.gov.on.ca;
consultation-en-cours@lautorite.qc.ca

February 26, 2019

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission, New Brunswick
Superintendent of Securities, Government of Prince Edward Island
Nova Scotia Securities Commission
Office of the Superintendent of Securities, Service NL (Newfoundland and Labrador)
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Department of Justice, Government of Nunavut

Attention: The Secretary
Ontario Securities Commission
20 Queen Street West
22nd Floor
Toronto, Ontario
M5H 3S8

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal, Québec
H4Z 1G3

Dear Sirs/Mesdames:

RE: CSA Staff Notice and Request for Comment 23-323:
Trading Fee Rebate Pilot Study

AGF Investments Inc. ("**AGF**") is writing to provide comments in respect of the Canadian Securities Administrators' ("**CSA**") Staff Notice and Request for Comment 23-323: *Trading Fee Rebate Pilot Study*, as published on December 18, 2018 (referred to herein as the "**Rebate Pilot**").

AGF provides asset management services globally to institutions and individuals. AGF's products include a diversified family of mutual funds, exchange traded funds, mutual fund wrap programs and pooled funds. AGF also manages assets on behalf of institutional investors including pension plans, foundations and endowments. AGF is registered in the categories of Investment Fund Manager, Mutual Fund Dealer, Exempt Market Dealer, Portfolio Manager, and Commodity Trading Manager.

AGF appreciates the opportunity to provide feedback to the CSA in respect of the Rebate Pilot proposals.

AGF believes that rebates incentivizing brokers to post quotes on certain exchanges has created market inefficiencies that are detrimental to long-term investors. Eliminating or significantly altering the rebate model that currently exists <u>is</u> in the best interest of investors and our Canadian market. It is AGF's opinion that such elimination/significant alternation of the rebate model will result in trade execution improving, and market data flowing more freely. It will also eliminate a lot of the "noise" currently experienced in the quote, and will ultimately make the Canadian market more trustworthy and transparent.

At AGF, we believe that the integrity and success of the Rebate Pilot are primarily dependent on the following 2 elements:

1. **Coordination with SEC Pilot Study**

The CSA has recommended the Rebate Pilot to include all pools of liquidity, including ATS's. AGF suggests that for fullness of data, all markets should be accessible in the Rebate Pilot. We also believe that working in collaboration with the SEC is imperative to the success of the Rebate Pilot in Canada. Our respective markets are tightly aligned, and the sharing of data can only help facilitate the best possible solution for the Canadian market.

2. **Technology Acceptance**

AGF submits that it is imperative that all technology solutions in the market today be configured to participate fully with the Rebate Pilot – whether that includes EMS/OMS platforms or any order entry systems (FIX) accessing the Canadian market. The Rebate Pilot requires nothing less than full participation, with complete data sets.

In short, AGF is interested in determining whether rebates are causing as much damage to the Canadian market as we think they are. Rebates, in our opinion, create more harm than good, and should be eliminated if the data proves our proposition.

The integrity of our market is of paramount importance. Investors who invest in Canadian securities should feel confident and protected, with minimal conflicts of interest in relation to fee rebates. The introduction of the Rebate Pilot is being applauded by many in the industry, and the outcome is highly anticipated. Whether the regulators ultimately eliminate fee rebates completely or alter them significantly, the reliability of the Canadian

AGF

market is of the utmost concern. To this end, AGF urges the CSA to steer the course for making the appropriate changes by engaging in the Rebate Pilot.

We thank the CSA for the opportunity to raise the above-noted support in favour of the Rebate Pilot proposals. AGF encourages the CSA to take their time, gather a fulsome data set, and ensure that the data garnered under the Rebate Pilot is made available for market participants to analyze and offer appropriate comment and input.

Yours very truly,

John Christofilos
Senior Vice President and Chief Trading Officer
AGF Investments Inc.

February 26, 2019

Via Email

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission, New Brunswick
Superintendent of Securities, Government of Prince Edward Island
Nova Scotia Securities Commission
Office of the Superintendent of Securities, Service NL (Newfoundland and Labrador)
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Department of Justice, Government of Nunavut

Delivered to:
The Secretary, Ontario Securities Commission
comments@osc.gov.on.ca

Me Anne-Marie Beaudoin
Corporate Secretary, Autorité des marchés financiers
Consultation-en-cours@lautorite.qc.ca

Re: CSA Staff Notice and Request for Comment 23-323
Trading Fee Rebate Pilot Study
(the "2018 Notice")

Dear Canadian Securities Administrators ("CSA"),

Ontario Teachers' Pension Plan ("OTPP") , the undersigned Canadian pension plans and Global asset managers, submit this comment letter to express our support for the Trading Fee Rebate Pilot for Canadian listed securities ("Pilot") proposed by the CSA in the 2018 Notice.

ONTARIO TEACHERS'
PENSION PLAN – RÉGIME DE RETRAITE DES ENSEIGNANTES ET DES ENSEIGNANTS

Collectively, this group of Canadian asset owners, with over 21 million members and approximately $1.2 trillion in assets, is committed to working in the best interests of our plan members, and as a result, has a deep interest in market structure reform that enhances our ability to pay pensions and invest plan assets on behalf of our members and beneficiaries. The long-term nature of our investments and liabilities, and our responsibilities as a fiduciary to our members, drive our interest in rules and regulations that govern the securities markets.

In recent history, technical advancements and regulatory rulemaking have attempted to increase market competition and lower trading costs. Unfortunately, this has resulted in increased market complexity and various unintended consequences, and long term investors have borne the cost of this change in market structure.

A controversial element of this complex market structure is the practice of exchanges paying rebates to broker members for order flow, otherwise referred to as maker-taker or taker-maker pricing. These pricing schemes as well as other fee incentives, have been generally criticized or questioned by a wide spectrum of asset managers, pension funds, academics and policy makers, including the CSA, based on a potential conflict of interest they create between brokers and their investor clients.

In fact, in 2014, the CSA published a Notice and Request for Comment, whereby it expressed its view that the payment of rebates by a marketplace is changing the behaviour of marketplace participants. As outlined in the Background section of the 2018 Notice, the payment of rebates may be:

- creating conflicts of interest for dealer routing decisions that may be difficult to manage;
- contributing to increased segmentation of order flow; and
- contributing to increased intermediation on actively traded securities.

We applaud the CSA for acknowledging these potential conflicts and proposing the Pilot as a necessary and appropriate step to understanding any inherent conflicts that may potentially arise for dealers and to study both changes in order routing practices and impacts on market quality measures.

We fully support the Pilot as proposed in the 2018 Notice. Further, we would like to highlight elements of the CSA's proposal in the 2018 Notice that we believe are essential to the Pilot:

ONTARIO TEACHERS'
PENSION PLAN – RÉGIME DE RETRAITE DES ENSEIGNANTES ET DES ENSEIGNANTS

The Pilot must test the elimination of exchanges rebates – It is critical to include a test group that prohibits the payment of rebates to create a data set that demonstrates the effect of rebates, of any size, on order routing and executing quality. Without this test group, the Pilot will be of limited use to long-term investors who question the importance of rebates to overall market quality. Also, this will allow exchanges to compete on pricing and execution quality without imposing further price controls on the market.

The scope of the Pilot – We are supportive of the Pilot being a sample of Canadian securities (including both interlisted and non-interlisted) from a list of high and medium liquidity securities. The Pilot proposal of approximately 210-270 stocks (140-180 in Stage 1; 70-90 in Stage 2) is sufficient and will provide an appropriate dataset. We are also supportive of the proposed 2 Stage approach of the Pilot, which will run three to six months prior to the implementation of the Proposed SEC Transaction Fee Pilot for non-interlisted stocks; and run in tandem with the Proposed SEC Transaction Fee Pilot for interlisted stocks.

Include all Canadian marketplaces – It is critical to include all Canadian marketplaces (including maker-taker, taker-maker exchanges and ATSs) in the Pilot. This will help to eliminate distortions in routing incentives which could skew the data outputs from the Pilot. Also, we are supportive that marketplaces seeking to implement either a fee or major market structure change throughout the implementation period of the Pilot will be required to demonstrate to the CSA that such a change does not interfere with the objectives of the Pilot.

Finally, in order to maintain the integrity of the Pilot, listed issuers should not have the option to opt out. We also agree that the Pilot should not harm issuers, and in fact, some issuers may benefit by the temporary elimination of trading rebates, making them less expensive and more attractive to trade. As evidenced by the support from the co-signers of this comment letter, it should provide the necessary confidence to all listed issuers that are to be included in this Pilot.

In the Design Report for the CSA Pilot Study on Rebate Prohibition (Appendix A of the Request), the CSA has asked for additional commentary in Appendix II: Questions for Market Participants. We have provided our additional commentary to this Commentary letter as Schedule 1.

We are confident the Pilot, through the use of appropriate empirical measures and the statistical analysis described in the Design Report, will generate sufficient data to study the effects that prohibiting the payment of marketplace rebates may potentially have on any inherent conflicts for dealers, and study both changes in order routing practices and impact on market quality measures.

ONTARIO TEACHERS'
PENSION PLAN – RÉGIME DE RETRAITE DES ENSEIGNANTES ET DES ENSEIGNANTS

We therefore support the proposed CSA Pilot and would encourage the CSA to take the necessary steps to implement it in 2 stages, as outlined.

Thank you for the opportunity to comment on the Pilot.

Sincerely,

Kevin Duggan
Managing Director, Execution,
Capital Markets
Ontario Teachers' Pension Plan

Richard Wan
Director, Trading,
Alberta Investment Management Corporation

Benoît Gauvin
Vice-President, Index Management, Trading and Securities Lending
Caisse de dépôt et placement du Québec

Chris Roper
Managing Director, Head of Financing, Collateral &Trading
Canada Pension Plan Investment Board

Adrien Mitchell
VP, Public Equities
Healthcare of Ontario Plan

Rosanna Bruni
Senior Director, Trading
PSP Investments

Mark Holleran
VP, Equities
Vesctor

Schedule 1: Questions for Market Participants

1. We believe the definition of both liquid and medium-liquid security is appropriate.

2. We believe that the Pilot should be introduced in two stages. We do not believe that a staggered introduction will cause material problems for statistical analysis or adverse results of the Pilot.

3. We believe that, for market making programs, exchanges should be allowed to continue using rebates or similar arrangements during the Pilot. It is important that the exchanges limit this to only designated market maker (RT) programs, and not include 'Electronic Liquidity Provider' (ELP) or like programs.

4. We believe that computing price impacts at the one and five second horizons is appropriate.

5. We believe that computing time-to-execution for limit orders posted at the CBBO prices or improving these prices is appropriate.

6. We believe that the number of market quality metrics as outlined in the Pilot is appropriate.

7. We believe that the goals of the Pilot can be achieved without including ETPs in the sample. We understand the challenges of finding matched ETP pairs for this Pilot, and we would be open to further commentary if there are viable and reasonable proposed solutions to these challenges.

T.RowePrice®
INVEST WITH CONFIDENCE

The following Global asset managers support the Trading Fee Rebate Pilot Study as proposed by the CSA. This endorsement is authorized by way of signature below, as an attachment to the comment letter submitted by Ontario Teachers' Pension Plan.

Signature: Mehmet S. Kinak

Name: MEHMET S. KINAK

Title: GLOBAL HEAD OF SYSTEMATIC TRADING

Firm: T. ROWE PRICE

MACKENZIE Investments | CONFIDENCE IN A CHANGING WORLD

The following Global asset managers support the Trading Fee Rebate Pilot Study as proposed by the CSA. This endorsement is authorized by way of signature below, as an attachment to the comment letter submitted by Ontario Teachers' Pension Plan.

Signature: C. Freef

Name: Carrie Frueborough

Title: Head Trader

Firm: Mackenzie Investments

180 Queen Street West, Toronto, ON M5V 3K1 T 416-922-5322 1-888-653-7070 E service@mackenzieinvestments.com
mackenzieinvestments.com

Scotia Capital Inc.
Global Equity
Scotia Plaza
40 King Street West, 68th Floor
Toronto, ON M5H 1H1

GLOBAL BANKING AND MARKETS

Scotiabank

February 27, 2019

The Secretary
Ontario Securities Commission
20 Queen Street West
22nd Floor
Toronto, ON M5H 3S8
comments@osc.gov.on.ca

and

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal, QC, H4Z 1G3
consultation-en-cours@lautorite.qc.ca

Via Email

Re: CSA Staff Notice and Request for Comment 23-323 – Trading Fee Rebate Pilot Study

Scotia Capital Inc. appreciates the opportunity to comment on the proposal by the Canadian Securities Administrators to conduct a market-wide pilot study on the prohibition of marketplace rebates (the "Pilot").

General Remarks

We believe that the marketplace practice of paying rebates to some participants while charging fees to others introduces a range of side-effects, which we ultimately believe to be harmful. These include:

- Proliferation of trading venues with near-identical features, whose differentiation is primarily on fee structure.
- Fragmentation of natural order flow among these trading venues, leading to increased intermediation and greater market impact costs for participants seeking liquidity.
- Long queue lengths on high-rebate marketplaces, resulting in poor execution quality and information leakage for institutional clients.
- Greater indirect costs, such as the cost of connectivity and market data, directly stemming from marketplace fragmentation and excess intermediation.

Scotia Capital Inc.
Global Equity
Scotia Plaza
40 King Street West, 68th Floor
Toronto, ON M5H 1H1

- A range of conflicts of interest, whether real or perceived, experienced by various participants whose economic incentives may be at odds with ideal client outcomes.

We note that a prior proposal to conduct a Canada-only marketplace rebate study, introduced as part of the 2014 review of the Order Protection Rule, was ultimately shelved on the basis that the risks to Canadian markets were too great at that time. The SEC's decision to conduct its Transaction Fee Pilot and include Canadian securities in the proposed manner presents a unique opportunity to study, identify and measure the magnitude of these effects on the market for the purpose of guiding future policy choices. **This is an opportunity that must not be passed up.**

We also wish to highlight that it is not enough to simply observe the U.S. study's results, and apply the conclusions to the Canadian market. Key differences in market mechanics and regulatory fabric will mean that the lessons observed from the U.S. experience do not necessarily translate in the manner anticipated.

Specifically:

- Any conclusions drawn from the Transaction Fee Pilot must be taken in light of the U.S. equity market being the largest and most liquid equity market in the world. As a result, conclusions to other, less liquid and less diverse markets may not apply – and the limitations of those conclusions will not be readily apparent simply from observing the U.S. experience.
- The widespread practice of direct dealer internalization in the U.S. market is substantially different from trends in Canada, owing to Canada's dark rules. This drives differences in order routing practices in the U.S. relative to those in Canada. As a result, the observations from the SEC Transaction Fee Pilot may not readily translate to Canada.
- The U.S. practice of payment for order flow also significantly alters the composition of order flow reaching the U.S. exchanges which are subject to the Transaction Fee Pilot. This practice does not exist in the same form in the Canadian market, instead relying on marketplace rebates to achieve similar economics.

This combination of factors leads us to strongly support the CSA's initiative to coordinate a pilot study on the prohibition of marketplace rebates, as proposed.

Pilot Study Design

We believe that the proposed study is well-structured overall, and wish to commend the academic team responsible for its design for the diligent and thoughtful proposal.

We broadly agree with the proposed structure of matched security pairs across both highly-liquid and medium-liquid securities. The breadth of the study must be balanced against the likelihood that the study will not result in enough data points for the least-liquid segment of the market to

Scotia Capital Inc.
Global Equity
Scotia Plaza
40 King Street West, 68th Floor
Toronto, ON M5H 1H1

draw meaningful conclusions. We therefore agree with constraining the study to exclude securities deemed illiquid as a compromise between breadth and statistical integrity. We would expect that the study's results relating to medium liquid securities would allow for educated extrapolation of the effect of the study on less liquid segments of the Canadian market.

We agree with the proposed inclusion of activity on all marketplaces, both exchanges and ATSs, in the study. We believe that the regulatory distinction between exchange and ATS is not driving routing decisions or behavior, and as a result both categories of marketplace should be treated equally for the purpose of the Pilot. While we recognize that this approach diverges from the methodology of the Transaction Fee Pilot, we believe this difference is appropriate and necessary to achieve meaningful research results in Canada.

We also wish to affirm that in our view inclusion in either the test group or the control group should not require the consent of any issuer or third party. We believe any fears that the Pilot could impact corporate cost of equity capital are unfounded, as we believe that cost of capital is a function of business fundamentals rather than trading mechanics. On the other hand, the ability for issuers to opt-out of the study would seriously compromise the ability of the research team to construct appropriate matched pairs and draw meaningful conclusions from the study.

Finally, we would like to highlight that the Pilot will necessarily impact the commercial business models of marketplace operators. We expect the firms currently reliant on the payment of rebates may seek commercial means of achieving similar results without violating the terms of the Pilot. We therefore believe it is integral to the Pilot that marketplaces be prohibited from implementing any mechanism that ties overall cost reductions to trading activity in the treated group, including mechanisms such as volume discounts for overall activity (which could include trading in the treated group). For clarity, we believe this constraint should cover all sources of marketplace revenue, including market data and connectivity charges.

This restriction on fee transference should apply to formal guaranteed-fill market-making programs operated by some marketplaces. We believe that these facilities offer preferential fee treatment to some participants (typically sources of retail order flow) in exchange for trading against a narrow subset of counterparties (the designated market-makers). In our view, these features are a Canadian implementation of a wholesaling business model which operate in technical compliance of Canadian rules regarding internalization and payment for order flow. As a result, these programs (and their built-in rebate economics) should fall in the scope of the proposed Pilot. We recommend that for the purpose of the study, the fee structure for guaranteed-fill market-making facilities be harmonized with the fee structure for equivalent trading outside of the facility within each marketplace.

Answers to Specific Questions

1. *We propose to define a security as medium-liquid if it trades at least 50 times a day on average and more than $50,000 on average per trading day over the past month. Do you*

Scotia Capital Inc.
Global Equity
Scotia Plaza
40 King Street West, 68th Floor
Toronto, ON M5H 1H1

believe that this definition is appropriate? If not, please provide an alternative definition and supporting data, if available, to illustrate which securities your definition captures.

We are agree with the definition as proposed.

2. *We propose to introduce the Pilot in two stages, with non-interlisted securities first, followed by interlisted securities. Do you believe that such staggered introduction will cause material problems for the statistical analysis and the results of the Pilot? If so, please describe your concerns in detail.*

We defer to the academic research team on whether a staggered introduction will confound statistical analysis of the results of the Pilot.

The primary consideration for whether the start of the Pilot is staggered or otherwise should be to maximize the opportunity to study market effects. If, for any reason, the Canadian Pilot is delayed to a point past the beginning of the U.S. Transaction Fee Pilot, we believe an immediate start to researching both non-interlisted and interlisted securities may be warranted.

Additionally, in lieu of a staggered beginning, it may also be appropriate to conclude the non-interlisted study subsequent to the end of the U.S. Transaction Fee Pilot, as the non-interlisted equities are not subject to the same cross-border trading dynamics as interlisted ones. As a result, Canada-specific observations for this security set may be obtainable after the end of the Transaction Fee Pilot and without additional implementation disruption.

3. *Several Canadian marketplaces offer formal programs that reward market makers with enhanced rebates in return for liquidity provision obligations. On the one hand, such programs may benefit liquidity. One the other hand, one of the primary objectives of the Pilot is to understand if rebates cause excessive intermediation. In your opinion, should exchanges be allowed to continue using rebates or similar arrangements for market making programs during the Pilot? Do you believe any constraints on such programs during the Pilot to be appropriate?*

We believe that exchanges should not be permitted to continue to use rebates for market making programs or other related mechanisms for securities in the test group.

The integrity of the Pilot, and the applicability of its conclusions, depend greatly on whether there are any "loopholes" in the study structure which indirectly allow otherwise-prohibited practices. A key example of this loophole is the use of "market making" programs to permit indirect bilateral trading of retail order flow, with a payment of rebates to active parties. This activity is precisely of the type that should be examined under the proposed Pilot. By permitting the continuation of such programs for stocks in the test group, the Pilot is significantly compromised.

Scotia Capital Inc.
Global Equity
Scotia Plaza
40 King Street West, 68th Floor
Toronto, ON M5H 1H1

For further clarity, we believe the restriction on the payment of rebates should apply to any facility, feature, order type or mechanism which would result in either a payment or a reduction of overall fees to any participant (whether a dealer or a client of a dealer) where the economic value of the payment (or fee reduction) is a direct function of traded volume.

We are not concerned with participation incentives offered by marketplaces where those incentives are expressed as improved queue priority or flat fees for service offered in exchange for meeting performance obligations.

4. *We propose to compute price impacts at the one- and five-second horizons. Do you believe that we should consider other horizons? If so, which ones?*

We believe that these time horizons are too long to capture the effect of rebates at the order execution level (i.e. order router performance degradation), and would instead bias study results towards capturing longer-dated information leakage effects.

To capture the effect at a more precise level, we recommend also computing price impact at the 1ms, 5ms, 50ms and 100ms levels.

5. *We propose to compute time-to-execution for limit orders posted at the CBBO prices or improving these prices. Do you believe that we should consider different price levels? If so, which ones? Please provide supporting data and analysis, if available, to demonstrate the empirical importance of order postings at other levels.*

We believe computing time-to-execution for limits posted at the CBBO is appropriate, subject to ensuring that the study captures the effect of CBBO changes which may be the direct result of the entry of the orders being studied. In other words, if an order is entered and the CBBO subsequently changes (at a short time interval), the study should consider whether such CBBO changes are systematic and may be related to marketplace rebates.

6. *We propose a number of market quality metrics. Do you believe that we should consider additional metrics? If so, please outline these metrics and provide supporting data and analysis, if available, to demonstrate their empirical importance.*

We agree with the metrics contemplated in the proposal.

In addition to the metrics presented, we would like to include some metrics of the breadth of participation in securities with or without marketplace rebates. We believe that a key tenet of the practice of paying rebates (in certain circumstances) is to "incentivize liquidity." We believe that liquidity in the market is closely related to the breadth of participation by risk-taking parties.

Scotia Capital Inc.
Global Equity
Scotia Plaza
40 King Street West, 68th Floor
Toronto, ON M5H 1H1

Empirical measures of participation breadth would allow the research team to test the hypothesis rebates incentivize liquidity-provision.

7. Given the challenges that ETP matching presents, can the goals of the Pilot be achieved without including ETPs in the sample? If ETP inclusion is important, can you propose a way to construct a matched sample that addresses the concerns identified above?

We agree with Staff and with the research team that the Canadian ETP market presents unique challenges which may confound the research goals of the Pilot. However, we also believe the goals of the Pilot can be achieved without the inclusion of ETPs directly.

The inclusion of ETPs would introduce unique difficulties in constructing matched pairs, particularly as it relates to the confounding effect on activity levels of ETP issuer sales practices, brand and product differentiation. We believe that in most cases, rebate economics do not significantly alter investor interest in specific products, but instead impact order routing decisions. In turn, we believe order routing for client orders in ETPs to be largely handled in a manner that is consistent with order routing for corporate securities.

We believe that ETPs can be included in the study without introducing the difficulty of constructing a matched-pair allocation method by comparing order routing practices of ETPs with order routing practices of corporate securities within the control group. This would allow the research team to test the hypothesis that ETP order routing is substantially similar to, or differs from, routing for corporate securities. Any differences identified in this manner can be used to guide policy decisions in the future, without directly involving ETPs or their issuers in the Pilot. In other words, if ETP routing is the same as corporate securities routing on average, then the effect of rebates on the routing in the ETP market can be expected to similar to the effect of rebates on the corporate market. If routing practices are different, further study may be warranted.

We also wish to stress that measures of ETP liquidity need to be considered in light of the heavily intermediated nature of the ETP market, and its links to the underlying assets of each product. We believe that the key determinants of liquidity in the ETP market is the willingness of firms to intermediate ETP flows and arbitrage the ETP market through the creation & redemption process. The drivers of this decision are typically outside the scope of rebate economics, and are instead influenced by factors such as the liquidity of the underlying market and the business relationship between the issuer and market-making firms. We therefore believe that the inclusion of ETPs in the Pilot will not significantly improve the understanding of ETP liquidity. Any results from the Pilot which suggest a causal relationship between rebates and ETP liquidity must be taken with a further analysis of the nature of participation by both intermediaries and investors.

We wish to stress that any policy conclusions from the Pilot should be applicable to the market at large without loss of generality from the specific choice of securities included in the study. If policy implications of the pilot would be constrained by the exclusion of ETPs, then we believe ETPs should be included in some fashion. We would rather face study difficulties now than increased complexity and costs in the future if that complexity is a result of study limitations.

Scotia Capital Inc.
Global Equity
Scotia Plaza
40 King Street West, 68th Floor
Toronto, ON M5H 1H1

GLOBAL BANKING AND MARKETS

Scotiabank

Conclusions

Scotiabank appreciates the opportunity to comment on this important matter. We wish to affirm our support for the proposed rebate pilot, its coordination with the SEC's Transaction Fee Pilot, and our confidence in the academic team involved in this work.

We believe this pilot is the most important market structure initiative undertaken by our regulators since the introduction of multiple marketplaces over a decade ago. We commend the CSA and Staff for the efforts to date and look forward to the Pilot's successful conclusion.

Respectfully,

Alex Perel, CFA
Head of ETF Services
Scotiabank Global Banking and Markets
(416) 862-3158
alex.perel@scotiabank.com

OSI OMEGA SECURITIES INC

February 28, 2019

The Secretary
Ontario Securities Commission
20 Queen Street West
22nd Floor
Toronto Ontario, M5H 3S8

Me. Anne-Marie Beaudoin
Corporate Secretary
Autorite des Marches Financiers
800, rue du Square Victoria, 22 etage
Montreal Quebec.

Omega Securities Inc. (OSI), the operator of Omega ATS and Lynx ATS, thanks the Canadian Securities Administrators (CSA) and the Ontario Securities Commission (OSC) for the opportunity to comment on the proposed Trading Fee Rebate Pilot Study. OSI has concerns about the objectives and methodology of the proposed study.

In evaluating the maker taker / inverted maker taker model or any other issue, it is necessary to look at not only the potential negative impacts but also the positive benefits that may be negatively impacted by the changes. The proposed pilot study only focuses on the negative so a true cost/ benefit or understanding of trade-offs is not possible unless those benefits are also identified and measured. For example, the methodology suggests that the CSA will be looking at liquidity, but what about the ability to innovate and encourage adoption or competition and the impact of lack of competition? The rebate fee model was originally introduced to allow new entrants to compete with incumbent marketplaces. Therefore, we believe that a pilot study should encompass methodologies to carefully consider the potential impact of removing rebates on the competitive environment.

Fee flexibility within a regulated framework is fundamental to encouraging adoption of new products and facilitating competition. Provided the fee structure does not unreasonably disadvantage any class of investors, regulators should carefully consider the impact on innovation and competition when reviewing new fee structure changes.

Since the introduction of maker taker and taker maker fee structures, liquidity has increased and market participants have seen a progressive decline in commission fees, and the cost of execution. The rebates and discounts have provided revenue that has been indirectly returned to the most fee sensitive market participants in the form of lower commissions.

Spreads are tighter since rebates were introduced. Liquidity at the touch has improved, dark pools have introduced price improvement, and improved hidden liquidity rebates have lowered the cost of a retail trade execution in Canada by on average1/3 to ½ cent per share.

Innovation has flourished and with best execution guaranteed and mandated, these different models have been able to appeal to different types of investors. We acknowledge that complexity has increased, but the necessary investments have already been made by the marketplace. In our view, rolling this back will have little effect on reducing investment industry costs. If rebates are reduced or eliminated the result in our view will be to increase the already high cost of trading for the Canadian retail investor. This could be one of the unintended consequences of this pilot study.

Regulators and the architects of the study must keep in mind the differences between US market structure and Canadian market structure. In the US the bulk of retail trading is executed by wholesale market makers who pay for access to this flow. In return they guarantee execution and some form of price improvement. In Canada this practice is banned. The cost of trading for a retail client in Canada is already many times higher than in the US. Limiting rebates will further this price gap and ultimately harm the Canadian retail investor. The smaller marketplaces that depend on these incentives have provided much needed competition and downward pressure on costs and have benefited the Canadian marketplace.

The proposal for the pilot study seeks to investigate if the payment of rebates and cumulative volume discounts:

- Create conflicts of interest for dealer routing that may be difficult to manage
- Contribute to an increased segmentation of order flow
- Contribute to increased intermediation on actively traded securities

Conflict of Interest

It is necessary to evaluate the quality of best execution in order to properly analyze conflicts. Execution of orders is subject to the requirements of best execution, which should mitigate if not eliminate potential conflicts. Best execution has been the topic of many debates through the years and regulations have been developed to address this issue. All broker dealers in Canada must have policies in place to define best execution and how it should be achieved. With this in place, does that not address this conflict of interest issue? Further, the Canadian capital markets operate under a strict and well supervised regulatory environment. This is further complemented by the Order Protection Rule and the use of a Best Bid and Offer book and trading continuously monitored in real-time by IIROC. Rebates are put in place to provide an incentive for liquidity where, all things being equal, broker dealers can choose which marketplace to send their orders to. It does not provide an incentive for broker dealers to receive worse fills for their clients.

It has been proposed that the perceived conflict of interest that is allegedly driving broker dealers' decisions to send immediately marketable client orders to inverted venues, while parking orders that cannot be immediately filled to maker taker venues for the passive rebates, is at the heart of the conflict. This is simply untrue. The observed behavior is a function of our inefficient market data distribution; in short, clients (mostly retail) cannot see their passive orders unless they are parked to the incumbent listing exchange. Most broker dealers only offer the primary listing exchanges' market data to their clients. In addition to this obvious limitation, broker dealers handling client orders are motivated to rest limit orders to the incumbents in order to participate in the opening and closing auctions. If a dealer were to miss an opening or closing print that was perceived by the end client to be within their order handling instructions and price limit, the dealer could be held responsible and would need to make the client whole by adjusting the fill and assuming the loss on the difference. The lack of a comprehensive universally available consolidated data feed creates disincentives to use certain venues and incentives to use other marketplaces.

Segmentation of orders is not intrinsically harmful to the quality of marketplaces

Fees are a key differentiator between different commercial entities competing for order flow. This is true of both marketplaces and broker dealers. This is not, however, order segmentation; rather it is an example of fragmentation. Although it is true that fragmentation can lead to opportunities for intermediaries to capture spread on a short-term basis, there is no evidence that this market structure is harmful to investors. On the other hand, real marketplace segmentation – a marketplace offering different pricing or functionality to its participants based on some unreasonably discriminatory criterium – is highly detrimental and is diametrically opposed to fair access.

Retail traders demand immediate price protected fills at the lowest cost, this constant flow attracts Liquidity Providers that are willing to pay for the constant flow. This subsidizes the retail trade, encourages lower commissions and compresses spreads.

Complexity arises because of diversity of trading objectives and mechanisms, not because of fees.

Increased Intermediation

The Canadian marketplace has always been illiquid (in relative terms). It has required expensive hands on intervention to maintain an orderly institutional market, with many venture stocks being one keystroke away from no bid.

The arrival of Electronic Liquidity Providers was originally concentrated on the top names, but over the years we have seen trading in lower tier names. We have seen one of these institutions opening in Canada as a full-fledged broker dealer, who will trade on more and more Canadian listings. Traditional exchange sponsored market makers have always been subsidized in some form to provide liquidity to marketplaces. Today the form of subsidization is partly taken up by rebates in lieu of marketplace subsidies.

OSC Burden Reduction Taskforce

As we were recently reminded, the OSC established in November of 2018 a special Burden Reduction Taskforce, yet we are now being asked to prepare for a complex experiment. The fee rebate pilot study will require complex system changes and will force us to deny our subscribers the approved pricing we intended for them. In addition, we believe the pilot study will result in increased costs for market participants such as vendors (SORs, and builds), broker dealers (compliance and regulatory), and retail investors (spreads and increased commissions to make up for lack of rebates). We believe it is counterproductive to innovation in the marketplace to be embarking on a project that will create an increased burden. We are supposed to be reducing undue burden and costs rather than compounding them.

Comments and Questions on Implementation

- We note that many US listed companies are asking to be excluded from the SEC pilot. They are asking to be excluded because they are concerned about lower liquidity, wider bid offer spreads, and ultimately a higher cost of capital. Has the CSA consulted with Canadian issuers on this issue? Are there plans to involve issuers in the pilot should it move forward or will issuers be forced to participate once selected for the sample? We believe this issue should be carefully considered.

- We have read suggestions that rebates lead to excessive intermediation. We don’t think there is such a thing. We believe that more intermediation equals tighter spreads, resulting in better quality execution for investors.

- We believe that the potential reduction or elimination of rebates will result in higher costs for retail investors. Should broker dealers not be able to earn these valuable fee rebates, then their costs of execution will increase, and they will likely choose to pass these increased costs on to their clients.

OSI OMEGA SECURITIES INC

- We do not believe there is enough evidence to suggest that a pilot in Canada is warranted. There is a risk of creating a legacy that is a vicious circle. The Canadian market has evolved from monopoly, to increased competition and innovation and it could go back to near monopoly. Should this occur, broker dealers will ultimately get frustrated with the near monopoly and motivate the move to support competition all over again. More competition and pricing options make our market better not worse. Taking away the rebate tool will restrict innovation and competition.

- We are concerned about the pilot's impact on displayed markets, with the potential to weaken them versus non-displayed markets. The pilot will also enable uneven trading patterns in the marketplace, with some symbols eligible for rebates and some without. Adverse selection to lit quotes widens spreads and only benefits dark pool liquidity providers.

- This pilot study is an experiment. In our view, experiments should be performed in a lab, not in a production environment. There are a number of ways to achieve this, we would be pleased to share our ideas on this with you.

US Litigation

As you are no doubt aware, the three largest marketplace operators in the US have filed lawsuits against the SEC in federal appeals court to stop the SEC pilot from moving forward. We believe this action sends a strong message about the potential overreach in jurisdiction of the SEC. We think the CSA should take note of this development.

In our option, the CSA should not proceed with the Canadian pilot while these lawsuits are outstanding. We respectfully request the CSA to put the Canadian pilot study in abeyance until the SEC lawsuits are resolved.

Conclusion

In conclusion, OSI believes that this pilot study does not address a current significant market failure, nor consider the offsetting benefits as part of its analysis. We believe the only result of this experiment if rebates are altered or banned will be to raise to cost of execution for retail trades. Trade execution profit margins across the industry have been cut forever, and high touch intervention trading is over. The advantage held by the incumbent marketplace is more limited than in the past. Multiple markets and Electronic Liquidity are the new reality. Rebates may seem like an easy target in a complex marketplace, but we believe that there are more prevalent conflicts to focus on, such as broker dealer order routing to affiliated platforms. Finally, there is serious concern about the SEC pilot study in the US which we believe should inform the CSA's decisions as to how it moves forward with a Canadian pilot study.

Sincerely,

Laurence Rose *Sean Debotte*

Laurence Rose Sean Debotte
Chairman President & CEO

Select Vantage

February 28, 2019

The Secretary
Ontario Securities Commission
20 Queen Street West
22nd Floor
Toronto, Ontario M5H 3S8
Fax: 416-593-2318
comments@osc.gov.on.ca

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, rue du Square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal (Québec) H4Z 1G3
Fax : 514-864-6381
Consultation-en-cours@lautorite.qc.ca

Dear Sirs and Mesdames,

Re: CSA Staff Notice and Request for Comment 23-323 – *Trading Fee Rebate Pilot Study*

Thank you for this opportunity to submit a comment letter on the Pilot Study.

Select Vantage Canada Inc. and its parent company Select Vantage Inc. are significant contributors to liquidity on Canadian equity markets, particularly in junior-listed names. We are commercially indifferent to whether or not rebates are paid and in what manner they are paid - *i.e.*, whether paid on active order flow ("inverted" markets) or passive order flow. In Canada, we are typically significant fee payers, and not receivers of rebates. Internationally, we trade in numerous markets that do not offer rebates. Generally speaking, our traders are able to adapt to regulatory changes in market micro-structure.

However, we strongly believe in the value of consistent and predictable micro-market rules for all industry participants. "Live" experimentation of the type proposed in the Pilot Study should not be undertaken unless there is a compelling reason for such a regulatory intervention. We know of no other industry where regulators have so dramatically intervened in how vendors price their products solely to analyze whether or not further regulations on pricing should be imposed. This proposal appears to be driven by the desire to pre-empt the Americans in their own pilot study so that Canadian academics can debate further intervention in our equity markets. We note that some American equities market incentives (for example, rebates or discounts contingent on tiered volume traded) simply do not exist in Canada, and so we question why we are concerning ourselves with a made-in-America policy study.

If the end-goal of this study is to consider the permanent limitation or banning of rebates in transaction pricing, what other features will marketplaces be expected to compete over? Will it be on speed of connectivity, which favours the fastest?

We see several reasons why this study's dramatic intervention in market pricing is ill advised:

1. *CSA should first consider less intrusive means of studying the issues raised.* In co-ordination with IIROC, the CSA currently has the authority to audit the routing practices of dealers and best execution policies that address how routing decisions are made. Has this been attempted through a sample review of dealers' routing practices? Why suspend operation of rebates across hundreds of stocks when there is a less intrusive means of studying potential conflict?

2. *Has any historical data been analysed in a similar fashion*? Given the robust competition between marketplaces, differing rebate structures – particularly, inverting the maker-taker model to pay for "active" orders – have been introduced over discrete periods of time. Through IIROC, the CSA has access to all Canadian historical equities trading data. If the study anticipates seeing statistically significant changes in trading patterns, then a review of historical trade data should likewise uncover statistically significant changes following changes in respective marketplaces' rebate structures. Has such a study been attempted?

3. *Effect of dealer pricing.* Some dealer firms charge institutional clients using a "cost-plus" model rather than an "all-in pricing" model. Cost-plus pricing passes on to the client all rebates earned on the particular client's trades, thereby limiting the incentive of a self-interested dealer to route to venues to maximize rebates for the firm at the expense of best execution for the client. We see no mention of this factor in the pilot study. Has the CSA determined roughly what percentage of Canadian client order flow is charged on such a cost-plus model? The greater the proportion of stock volume traded under a cost-plus model of pricing, the less analytical value this study will have. From a policy perspective, how is it fair to deny institutional clients market payment for providing liquidity so academics can study the impact of a rebate suspension on the entire industry?

4. *Venue ownership.* A potentially greater source of conflict arises in situations where dealers are material shareholders in venues they route client orders to – in other words, a dealer receives an indirect economic benefit with every order executed on that dealer's own marketplace. This Pilot Study appears to do nothing to measure this potential conflict (whereas the form of study suggested in #1 above would).

5. *Other incentives for order flow.* Every stock exchange and ATS engages in marketing targeted at convincing dealers to use their competing services. What is the impact of such benefits on routing choices? Again, this study will do nothing to examine this potential conflict (whereas the form of study suggested in #1 above would).

6. *ETF market-making (response to Questions #3 and #7 of the Pilot Study Request for Comment).* In selecting stocks for participation in the rebate suspension, consideration should be given to exclude stocks that form part of exchange-traded funds. Speed of execution is imperative to ETF market makers when assembling ETF units by purchasing the relevant proportions of underlying stocks, and so the benefit of earning a rebate on such stocks will be a very low, or even non-existent, incentive for them when purchasing such stocks. Therefore, such market making in stocks contained within ETF units will dilute the analytical value of examining the effect of a rebate suspension. Conversely, we do not believe that temporarily suspending other marketplace incentives provided to ETF market makers to create such units is the answer as this will simply involve even more intrusion into market forces responsible for creating ETF investment products relied on by many investors.

Select Vantage

Sincerely,

Daniel Schlaepfer
President

Mario Josipovic
Vice President, Regulatory Affairs and General Counsel

By Email

February 28, 2019

To:

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission, New Brunswick
Superintendent of Securities, Government of Prince Edward Island
Nova Scotia Securities Commission
Office of the Superintendent of Securities, Service NL (Newfoundland and Labrador)
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Department of Justice, Government of Nunavut

Care of:

The Secretary
Ontario Securities Commission
20 Queen Street West
22nd Floor
Toronto, Ontario M5H 3S8
Fax: 416-593-2318
comments@osc.gov.on.ca

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, rue du Square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal (Québec) H4Z 1G3
Fax : 514-864-6381
Consultation-en-cours@lautorite.qc.ca

Dear Sirs/Mesdames:

<u>Re: CSA Staff Notice and Request for Comment 23-323 Trading Fee Rebate Pilot Study (the “Pilot Study”)</u>

Thank you for the opportunity to comment on your proposed Pilot Study.

This initiative, if it proceeds as planned, will have a direct, and adverse, multi-year impact on many Canadian investors and companies. It will likely undermine the integrity of the Canadian capital markets and violate the principles of transparency by further increasing the more than $100mm in hidden transition costs already borne each month by Canadian investors.

The intent for the Pilot Study remains unclear. The main justifications cited in the United States for a similar undertaking do not meaningfully exist in Canada. Furthermore, the tools and data to conduct a very accurate, precise and timely review of the implied issues already exist, involving no adverse impact on current market stakeholders.

It has never been more important, or more challenging, for Canada to attract and retain the capital required to build the next generation of enterprise and innovation. That requires less, rather than more, bureaucracy and red tape and it demands that our regulatory environment foster world-class standards of transparency and accountability. Not less.

To maintain an advantageous principles-based regulatory environment, we must not lose sight of the underlying first principles.

Your call for comments and its accompanying materials do not provide any substantive rationale for why this Pilot Study is being proposed. There are speculations and allusions to possible problems, but nothing truly tangible other than the fact that the Americans are doing something similar. As discussed in past comment letters, this rationalization remains insufficient. Instead, we should be learning from, not replicating, the mistakes of our southern neighbours.

Developing solutions for non-existent problems is an inappropriate use of the resources of the CSA and of all the impacted parties who will have to respond to this initiative. That is instead the domain of the ivory-towered academics (who would appear to have a heavy hand in this matter) and not something that would warrant turning real-world corporations, investors, participants, service vendors and marketplaces into experimental guinea-pigs.

As is so often the case in these matters, a basic review of first principles and an assessment of underlying stakeholder motivations would be in order.

To function properly, markets need liquidity. Providing liquidity entails certain risks. The provider must disclose their intentions for all others to see before they in turn decide their course of action. Maintaining a firm intention in the face of a dynamic market environment exposes the provider to adverse price movements and to the actions of others who have had the benefit of knowing the provider's intentions. To compensate, we have developed the concept of price/time priority (although the permitting of embedded, parasitic dark orders/markets continues to erode this critical element of the price discovery process) and, over time, global markets have developed various structural, pricing and execution advantages and incentives to reward market makers, given the integral role they play in making markets more efficient and effective.

Liquidity providers are not long-term investors. Their objective is to make money providing liquidity, not to make money on market direction. Ideally, they would like to buy a security for less than they sell it at and to flatten out their exposure as quickly as is possible to avoid any adverse price volatility.

For those in the business of providing liquidity, the calculations are fairly straightforward. On the upside, their goal is to capture the bid/ask spread and any related rebates available. Against that, they incur the costs of business (including taker fees, when required) and any losses resulting from intervening adverse market movements. Thus, the dominant players focus on building the best order entry and risk management tools available. As regulator-enforced minimum bid/ask spreads collapsed, most traditional liquidity providers have had to automate to survive. While collapsed bid/ask spreads were of huge benefit to investors, it necessitated a change in the traditional dealer business models. With shrinking margins they had to adapt or get out of the way. The introduction of multiple markets and the accompanying arrival of high-frequency traders and their advanced trading tools has been wonderful for investors and disastrous for dealers clinging to traditional models. Not surprisingly, the whole "rebate" debate has historically been framed in this context. Rebates offer further inducements for liquidity providers but represent increased costs (that are not easily offset) for dealers. This is a stated core underlying dynamic at play behind the Pilot Study.

To refresh, not all securities are the same. Some have high natural flow and so the risk of providing liquidity is significantly diminished. For many of these securities, the bid/ask spread is more than sufficient, hence the subsequent proliferation of "inverted" markets where providers pay to provide liquidity. By way of simple example, let us contrast two scenarios, the first involving a security of average liquidity that trades at the prescribed 1 cent minimum bid/ask spread and on which liquidity providers are offered a rebate of 2/10ths of a cent per share to post firm bids and offers. The second (inverted) scenario involves a very active security and, while the minimum bid/ask spread has been artificially propped up by regulatory decree at 1 cent, providers will be charged 1/10th of a cent per share to post firm bids and offers. All things being equal (i.e., with no intervening volatility), the provider in the first scenario stands to make a total of 1.4 cents for every share successfully bought and then sold. In contrast, the provider in the second scenario is capable of making only 8/10th of a cent for every successful match.

Liquidity providers only make money if their offerings are the best available and at the top of the book. It is free market principles that thus dictate which rebate regime is applicable for which securities at any given time. The more liquidity providers that are jostling to service investors, the deeper the liquidity available on any security at a given moment.

There is a third scenario, where volatility and/or lack of natural flow necessitates that market makers widen the bid/ask spread to remain in business. It is very reasonable to expect that banning rebates will, for these securities, result in wider spreads for both issuers and investors alike. Transition costs will increase, although dealers will not feel the pain. In fact, many may profit from the wider margins being re-introduced.

The regulator-imposed minimum bid/ask spread is the primary inconsistency in this analysis. For the many securities that can thrive in an inverted market environment, it is what holds investors back from achieving the lower transition costs that a reduced (or non-existent) bid/ask spread would provide them. To put this in context, this forced spread contributes to the over $100 million a month in hidden transition costs currently faced by Canadian investors. Soon after the multiple market environment was launched, market forces unequivocally demonstrated that, for many securities, providers were willing to post bids and offers at the same price. They were making money on just the combined rebates of 4/10ths of a share (in scenario 1 above) as that more than compensated for the costs and potential losses. However ideal the prospect of having zero bid/ask transition costs was for investors, Canadian regulators last decade banned locked markets and have forced minimum bid/ask spreads upon the market – hence why we now have traditional and inverted markets. Technology has outpaced regulatory evolution. The irony, in the Canadian context, was that our regulators enforced required spreads *after*, not before, the technological evolution that had dispensed with their requirement.

I have digressed in part to illustrate the core underlying issues at play here as well as the pitfalls of embarking on regulation for regulation sake without *advance* recourse to empirical analysis. Lack (some might say fear) of basic empirical analysis has often plagued market structure policy development in Canada for quite a while and it might be time to halt that practice.

The proposed Pilot Study is an excellent case in point. Nowhere can one find a concrete and quantified description of the problems that are allegedly going to be solved. The words “maybe” and “may” are relied on quite heavily, but it is all speculation. In contrast, there are specific references to the fact that dealers often pay fees they cannot readily offset. The fact that the new providers are employing superior technology to provide a better service and are earning the margins (albeit reduced) that used to be the exclusive domain of the dealers has likely further added to the latter’s current disgruntlement.

So, to solve an ill-defined and possibly non-existent problem, it is being proposed that we turn our national capital markets into a theoretical playground for some social scientists to conduct a real-world experiment involving banning liquidity provision rebates for some securities but not for others. They propose dividing senior Canadian securities into two groups – the haves and have nots (or to use their quaint euphemism, the treated and the non-treated). They intend to conduct a multi-year study of “the impacts of transaction fees and rebates on order routing behaviour, execution quality, and market quality”. There may be conflicts, there may not. There may be benefits or adverse consequences, there may not. Who knows? Certainly not the proponents of this study. The only substantive excuse they have at this stage appears to be that the Americans are gearing up to do something similar. Particularly in today’s environment, that is almost the antithesis of a compelling reason, national insecurities aside.

Why are the Americans threatening to pursue a similar initiative? There are a variety of unique factors at play in that country. They have a comparatively flawed set of market structure rules that have created what they believe are identifiable concerns. Unlike Canada, they do not have an order exposure rule. Dealers there can shop their client’s orders between trading venues and internalization schemes before exposing them to the markets proper. Unlike Canada, they do not have full depth of book order protection rules so dealers can cross better prices fairly easily if they wish. Unlike in Canada (save for limited exceptions), American markets do offer retroactive pricing discounts to those dealers who attain various volume thresholds in any given month. This is often cited as one of the biggest justifications for their proposed comparable study. Unlike their Canadian equivalents, US regulators are mired in bureaucratic stagnation such that they desperately want to be seen as "doing something" given that it is now over a decade since maker/takers models and high-frequency traders upended the traditional dominant dealers' margins and business models. None of this would justify why we should possibly follow them down a rabbit hole of their own making.

One thing is certain, there will be consequences. If not, then why embark on the project in the first place? This is not some sort of social engineering laboratory, this is the real world that we are discussing. It is very likely that companies, investors, markets and dealers will be impacted, many adversely. It seems very inappropriate (some might even say irresponsible) to consider conducting this experiment with so little justification and advance preparation.

It is fair to question if any meaningful data and outcomes will result. Markets are fluid and exogenous variables are almost a given (witness what your Academics note about the SEC direct market access review in 2011). Companies blossom and flounder and issue and buy-back securities quite frequently. There are many participants, each with different motivations and capabilities, that come together to create a functioning marketplace. It will be impossible to definitively determine all of the specific outcomes resulting from a selective ban on rebates. At best we will get, many years from now, a hedged set of generalizations and some suggested avenues for future investigation.

Those who secretly want to roll the clock back to higher margin days of yore will no doubt delight in seeing marketplaces falter or even collapse given the proposed regulatory shackles. Some may own the markets they think will be the winners or survivors. They probably will not mind seeing bid/ask spreads inevitably widen on securities where the rebates constituted a critical element of liquidity providers' cost benefit analysis. They most assuredly will rejoice if any of the next generation of competitors get brushed back from the plate or even run out of the country. But that will be just one, very narrow, stakeholder group. What of the investors and the companies whose securities will be adversely selected in this grand experiment? Should they have recourse against the architects of this ill-designed folly? Quite possibly, they should. Yet another reason that our regulators should not embark on this misadventure in the first place.

Instead, if the goal really is to understand the impact that rebates play in routing and execution decisions, then the definitive answers are readily available currently and could be analyzed with complete confidence in a matter of weeks, with no disruptive influence on the markets. It will involve the dreaded basic empirical research that has so often eluded past market structure policy formation, but it should be done.

With very few, if any, exceptions, order entry decisions have largely been removed from human touch. Discrete algorithms within each order router determine how each market is approached and how orders are exposed and executed. There is specific logic employed and, for the most part, it is not frequently changed. Most dealers rely on third party router providers so there will not be that many routers to review. The customized choices each dealer faces and makes when reviewing their internal or third-party provider's router configurations are detailed and recorded for compliance purposes.

The CSA should assemble a team and require that all routing configurations and change logs from the last two years be handed over to them forthwith by all dealers handling retail client orders during that period. Frankly, given the issues alluded to in your materials, this review alone would probably provide all the answers you are hoping to unveil, with 100% accuracy in the results. As you already have access to all resulting order traffic and trading data via IIROC's data systems, it should be fairly simple to follow actual orders through the various order entry and then execution processes should you wish to go even further in the analysis. This will result in hard data and tangible results, and in a fraction of the time currently contemplated by the Pilot Study, with no undue, incremental damage inflicted on any stakeholder – save, perhaps, for certain dealers whose client order routing practices may not stand up so well to full review.

As a quick aside, if dealers were to pass on marketplace fees to their retail clients (as many already do for their institutional clients), then I suspect that much of the noise compelling you to action would dissipate, pressure to reduce or eliminate bid/ask spreads would mount and best execution and free market principles would be re-aligned. Something to seriously consider.

If our objective is to see, in real-time, the impact of a selective rebate ban, then let the Americans score an own goal and proceed without us. There will be no need for selecting matching control groups as we will have perfect symmetry between the two jurisdictions on the inter-listed securities and we could see first-hand the effects without causing any damage to our markets. I suspect that we will actually benefit as the American flail on their initiative. That is, if they even get past the current court challenges against their proposed pilot. If they try to pressure you into staying the course because they fear that unilateral action on their part would prove prejudicial to their interests, then they will have succeeded in reinforcing exactly why we should never have joined in this coordinated folly in the first place.

I will not spend time on any technical inconsistencies within the proposed study as I am sure others will do an adequate job of same and, as mentioned previously, I genuinely hope this initiative is aborted before meaningful damage ensues. However, there is one remaining item I wish to draw to your attention. There cannot, and should not, be anything that is deemed the CBBO (Canadian Best Bid and Offer). If we have learned anything about the electrification and democratization of our markets, it is that there are no definitives involved. However an observer chooses to measure the markets (via a commercially consolidated feed, a smart order router, or through direct observation) the factors of speed and geographic location will render each observer's results to occasionally be slightly different from one another. That is fine. It is not something to be feared. All one can do is employ best efforts and act reasonably in one's efforts. The Americans made the mistake of constructing a legally binding NBBO and all that did was give rise to the inevitable arbitrage games that imposing a rigid framework on a fluid dynamic invariably entails. Again, please discourage your teams and academic associates from imitating that mistake. Our competitive advantage over the Americans has always been our principles, not rules, based approach to regulation. Please do not forsake that.

I apologize in advance if my words appear too harsh, but I truly continue to believe that Canada has the opportunity to create the best market structure in the world and that the only things holding us back are uninformed regulation, fear of empirical analysis and an insecurity to break free from American precedents.

Good luck on this one and I hope my comments help steer the ship back to a more productive course.

Thank you,

Ian Bandeen

Co-founder of the Canadian Securitization markets and past Global Head of Securitization and Structured Finance at BMO Nesbitt Burns
Co-founder and past Chair and CEO of CNSX Markets Inc, operator of the Canadian Securities Exchange
Co-founder and Chair Emeritus, National Angel Capital Organization

Invesco

5140 Yonge Street, Suite 800
Toronto, Ontario M2N 6X7

Telephone: 416.590.9855 or 1.800.874.6275
Facsimile: 416.590.9868 or 1.800.631.7008

www.invesco.com

Julianna S. Ahn
Vice President, Legal & Associate General Counsel
T: (416) 228-3669
F: (416) 590-1621
Email: julianna.ahn@invesco.com

February 28, 2019

VIA E-MAIL

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission, New Brunswick
Superintendent of Securities, Government of Prince Edward Island
Nova Scotia Securities Commission
Office of the Superintendent of Securities, Service NL (Newfoundland and Labrador)
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Department of Justice, Government of Nunavut

Attention:

The Secretary
Ontario Securities Commission
20 Queen Street West, 22nd Floor
Toronto, ON M5H 3S8
comments@osc.gov.on.ca

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, rue du Square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal (Québec) H4Z 1G3
Consultation-en-cours@lautorite.qc.ca

Dear Sirs/Mesdames:

Re: Canadian Securities Administrators ("CSA") Staff Notice and Request for Comments 23-323 *Trading Fee Rebate Pilot Study* (the "CSA Paper")

We are writing in response to the request for comment in the CSA Paper dated December 18, 2018, with respect to the proposed Trading Fee Rebate Pilot Study that would apply temporary pricing restrictions on marketplace transaction fees applicable to trading in certain securities (the "Canadian Pilot").

Invesco Canada Ltd. (“Invesco Canada”) is a wholly-owned subsidiary of Invesco Ltd. (“Invesco”). Invesco is an independent investment management firm dedicated to delivering an investment experience that helps people get more out of life. As of January 31, 2019, Invesco and its operating subsidiaries had assets under management of approximately US$930 billion. Invesco operates in 25 countries in North America, Europe and Asia. Invesco Canada is registered as an Investment Fund Manager, an Adviser and a Dealer in Ontario and certain other provinces.

Proposed Canadian Pilot

In the United States, Invesco has long advocated for changes to the “market-taker” model. Invesco has expressed its concerns about the possible conflicts of interest, unnecessary complexity and reduced market transparency resulting from this model and the transaction fees and rebates currently used by U.S. marketplaces. Invesco Canada shares these same concerns with respect to the “market-taker” model in use in Canadian marketplaces, and Invesco Canada supports the Canadian Pilot.

Much has been written about the potential impact of transactions fees and rebates on routing behavior, execution quality and market quality. While there may be limitations to the data ultimately produced, the Canadian Pilot will hopefully provide the currently missing empirical evidence that supports or contradicts these concerns, and contribute to more informed policy-making and more effective regulation of marketplaces.

Coordination with the SEC Pilot

Invesco Canada supports the coordination of the Proposed Pilot with the transaction fee pilot for NMS securities (the “U.S. Pilot”) that will be conducted by the United States Securities and Exchange Commission (the “SEC”). We believe that this is the only reasonable way to proceed with the Canadian Pilot given the “interconnected nature of North American markets” [1] and the fact that some Canadian securities are inter-listed in the United States.

Exclusion of ETPs from Canadian Pilot

We have comments on the following question posed by the CSA:

> 7. *We have had extensive discussions with a number of market participants on whether to include exchange-traded products (ETPs) in the Pilot, and some participants suggest that such an inclusion is warranted. Nevertheless, others point out that trading characteristics of ETPs are substantially different from those of corporate equities and including ETPs will present significant challenges in the matching stage and will likely confound the results in the analysis stage. These participants and our own research identify the following concerns:*
>
> • *most liquidity in ETPs is determined and provided by contracted market makers, and the ETP creation/redemption process represents its own source of liquidity;*
>
> • *matching characteristics that we propose to use for corporate equities do not have the same meaning for ETPs. For instance, ETP fund size is not a relevant metric, and ETP*

[1] CSA Paper, page 1

trading volume is usually not correlated with quoting activity or liquidity;

• spillover effects of two types may confound the results. First, liquidity in ETPs relates to liquidity of the underlying basket of securities, and if the basket is significantly affected by the Pilot, the ETP will be affected too. Second, ETPs that follow the same baskets may be viewed not only as good matches, but also as substitutes for investment, hedging, and trading purposes. If one of them is selected to be treated, and the other is not, market participants may move between products, potentially confounding the results of the Pilot.

The above-mentioned concerns make finding matched ETP pairs a uniquely challenging task. To the best of our knowledge, there is no established procedure for matching ETPs to study their trading costs. As such, in relation to ETP inclusion, we ask that market participants consider the following questions: Given the challenges that ETP matching presents, can the goals of the Pilot be achieved without including ETPs in the sample? If ETP inclusion is important, can you propose a way to construct a matched sample that addresses the concerns identified above?

Invesco Canada strongly supports the CSA's exclusion of ETPs from the Canadian Pilot, and the CSA's divergence from the SEC's decision to include ETPs in the U.S. Pilot.

In its comment letter to the SEC dated May 25, 2018 regarding the U.S. Pilot, Invesco expressed significant concerns about the SEC's inclusion of ETPs in the U.S. Pilot. [2] Invesco expressed the view that given the ways in which ETPs differ from shares of an operating company the inclusion of ETPs in the U.S. Pilot had the potential to create "winners" and "losers" amongst competing ETPs, based solely on which test group an ETP was placed in. ETPs could effectively be included in the U.S. Pilot only if similarly situated ETPs would be classified as such. Invesco noted that while this is theoretically possible, there would be real-life difficulties in doing so.

Invesco Canada echoes these concerns in regards to the potential inclusion of ETPs in the Canadian Pilot. Invesco Canada is of the view that the concerns Invesco expressed with respect to the inclusion of ETPs in the U.S. Pilot apply even more acutely with respect to the inclusion of ETPs in the Canadian Pilot given the smaller and less liquid Canadian market.

Some market participants have expressed the view that ETPs should be included in the Canadian Pilot, and have expressed concern that because ETPs are different from equity securities, data from a study that excludes ETPs should not be used as the basis for policy-making and action in respect of ETPs. We understand and appreciate this concern from a theoretical perspective. But we must deal with the realities of the Canadian market where there is a finite, limited set of ETPs. Accordingly, we agree with the decision of the academics who designed the Canadian Pilot to exclude ETPs.

While we acknowledge that there are differences between ETPs and equities, we believe that the findings from the Canadian Pilot in respect of the impact of transaction fees and rebates on equities still would be relevant for ETPs, and that expanding the scope of the Canadian Pilot to include ETPs would produce additional data of questionable value which would come at the cost of potential distortions in the marketplace.

[2] Invesco's letter is at https://www.sec.gov/comments/s7-05-18/s70518-3712175-162394.pdf

Thank you for providing us with the opportunity to comment on this important initiative. We would be pleased to discuss our comments with you further should you so desire.

Yours very truly,

Invesco Canada Ltd.

(signed) "Julianna Ahn"

Julianna Ahn
Vice President, Legal & Associate General Counsel

CANADIAN SECURITY TRADERS ASSOCIATION, INC.
P.O. Box 3, 31 Adelaide Street East
Toronto, Ontario M5C 2H8

March 1, 2019

The Secretary
Ontario Securities Commission
20 Queen Street West
22nd Floor
Toronto, ON M5H 3S8
comments@osc.gov.on.ca

and

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal, QC, H4Z 1G3
consultation-en-cours@lautorite.qc.ca

Re: CSA Staff Notice and Request for Comment 23-323 – Trading Fee Rebate Pilot Study

The Canadian Security Traders Association, Inc. is a professional trade organization that works to improve the ethics, business standards and working environment for members who are engaged in the buying, selling and trading of securities (mainly equities). The CSTA represents over 850 members nationwide, and is led by Governors from each of three distinct regions (Toronto, Montreal and Vancouver). The organization was founded in 2000 to serve as a national voice for our affiliate organizations. The CSTA is also affiliated with the Security Traders Association (STA) in the United States of America, which has approximately 4,200 members globally, making it the largest organization of its kind in the world.

This letter was prepared by the CSTA Trading Issues Committee (the "Committee", "CSTA TIC" or "we"), a group of 21 appointed members from amongst the CSTA. This committee has an approximately equal proportion of buy-side and sell-side representatives with various areas of market structure expertise, in addition to one independent member. It is important to note that there was no survey sent to our members to determine popular opinion; the Committee was assigned the responsibility of presenting the views of the CSTA as a whole. The views and statements provided below do not necessarily reflect those of all CSTA members or of all members of the Trading Issues Committee.

The Canadian Security Traders Association appreciates the opportunity to comment on the Canadian Securities Administrators (the CSA) proposed trading fee rebate pilot study (the "proposal" or "proposed pilot").

General Remarks

We wish to applaud the CSA for its ongoing effort to understand the impact of trading fee rebates on the policy objective of fair and efficient capital markets and public confidence in those markets. We appreciate the need for unbiased data to support sound policy making and the complexities involved in establishing the best conditions for an objective, thoughtful and informative study.

In 2016, the CSA decided not to proceed with a study of Canadian trading fee rebates unless a similar study was undertaken in the U.S. As noted in the decision, the risk that divergence between Canadian and U.S. trading economics would cause undesirable consequences for Canada's equity markets limited the CSA's ability to conduct a unilateral pilot.

The CSTA TIC had previously opinion that the CSA and SEC should jointly conduct a comprehensive cross-border study of the effect of trading fee rebates[1]. With the recent SEC announcement of the proposed implementation of a transaction fee pilot, this represents a unique opportunity to coordinate a study on the impact of trading fee rebates in Canada and in the U.S., decreasing the risk of regulatory arbitrage that would detract from the quality of the results of a study.

With the opportunity for a coordinated study within reach, there are certain considerations that should inform the approach of the proposed pilot. In general, we believe that the CSA and the academic team with whom they have engaged have established a core study framework that is appropriate for Canada, including coordination with the proposed U.S. study. The transparency and flexibility which has been shown to all participants through the process of developing the said framework has been commendable.

Industry Focus Areas

Since their introduction in 2005, there has been a debate in Canada as to the consequences of marketplace trading fee rebates. The following are some of the key questions that frame the debate::

- Are rebates the optimal mechanism to incentivize liquidity formation when considering behavioral and economic impacts?
- Do trading fee rebates enhance liquidity and decrease costs for investors?
- Should trading fee rebates be applied equally across all exchange traded securities?
- Is the principal-agency conflict at play and does it undermine the motivation of brokers to seek best execution for client orders?
- Are exchanges and ATSs capitalizing on the impact of rebates at the cost of industry participants, specifically in the context of an order-protected regulatory regime?
- Do the competitive dynamics caused by trading fee rebates result in unnecessary complexity and an additional cost to investors and participants?

[1] https://www.sec.gov/comments/s7-02-10/s70210-424.pdf

Institutional investors (whom members of our Committee either represent or furnish services to) are particularly interested in how trading fee rebates affect the following factors:

- Market impact and opportunity cost for large orders;
- Conflicts of interest in the routing of institutional orders (principal-agency);
- Cost of monitoring agency relationships for best execution;
- Long queue times for resting orders incented by rebates vs. the ability to access shorter queues by posting on markets with inversed trading rebates;
- Intraday volatility, potentially impacting confidence to trade in size for institutional asset managers and for institutional sell-side brokers to offer risk capital;
- Liquidity incentivization and the search cost to find liquidity;
- Cost of general management of complexity.

These issues are intertwined with the difficulties that institutional investors face in assessing order routing practices by dealers. Canada currently lacks a standardized framework for order handling disclosures, such as the SEC amendments to Rule 606 enacted in 2018. Some of our Committee members believe that standardized and mandated broker order handling disclosures should be required before undertaking a trading fee rebate study. Others believe that the additional data would be useful, but that the lack thereof should not delay the pilot.

In general, the CSTA TIC recognizes that enacting broker transparency requirements (similar to Rule 606) prior to the trading fee rebates' start may not be realistic and could unnecessarily delay the study. However, we would ask the CSA to make institutional order handling disclosure a priority as this topic is key to investors' decision-making on order execution.

Conducting a Canadian Rebate Pilot

The proposed structure of the Canadian trading fee rebate study has inherent advantages, including:

- The CSA and academic group are positioned to identify design considerations reflecting the unique characteristics of Canadian equities, inclusive of highly fragmented Canadian interlisted securities, as well as the questions of Canadian investors, participants and marketplaces;
- Through staggered introduction of non-interlisted names, the Canadian study offers the opportunity to diversify against confounding exogenous factors related to implementation on a single event date;
- Dialogue between Canadian and U.S. regulators and the teams charged with conducting these studies offers an opportunity for exchange of ideas and approaches which should improve the likelihood for robust study design, analytics and interpretation across both jurisdictions;
- Unlike the U.S. study, which applies only to exchanges but not ATSs, the study of non-interlisted names will be the only opportunity to examine the pure impact on the prohibition of trading fee rebates across all marketplaces;
- Access to the IIROC STEP database will provide the Canadian academic team with a comparatively robust dataset, which will afford greater ability to study the impact on the prohibition of rebates on various constituencies;

- The results of a Canadian study will not only better inform Canadian policy making but arguably U.S. and Global policy making and academic discourse on matters of market structure. This is an opportunity for Canadian leadership.

Our Committee believes it is unlikely that the study will answer all questions definitively. There will remain questions related to causality, lack of information, temporary changes in behavior vs. permanent, etc. We believe the results will, nonetheless, serve to inform policy making and support the maintenance of confidence in the secondary markets.

Pilot Sample Selection and Control Matching Procedure

Broadly speaking, we agree with the methodology that the academic team has outlined for the selection of the universe of possible corporate pilot securities. Importantly, this includes the exclusion of stocks priced at less than $1. While some have voiced concern over the inclusion of only TSX listed securities, we believe that for the purposes of a robust study, that this is a reasonable limitation which does not significantly impact the general applicability of the study's results.

Inclusion and segmentation of "highly liquid" securities as defined by IIROC vs. "medium liquid" securities is a reasonable approach that balances the risk of less liquid securities introducing difficult to manage noise into the study vs. the need to include less liquid securities to best inform policy making.

The outlined control matching procedure described and expanded upon in Appendix I of the request for comment appears reasonable and contemplates appropriate factors of price, volume and market capitalization.

For the robustness of the study, it will be important to validate that results of this approach do not unduly introduce industry sector biases in the final treated/untreated groups – this could introduce contamination to the study. To address this, we would propose generating several random treatment assignment groups and selecting the one that achieves the highest level of sectoral balance (as measured by GICS sector or other similar classification) across the treatment and control groups.

Finally, we would underscore that sample selection and treated/untreated assignment should be geared to maximize the opportunity for a robust and meaningful study. Accordingly, there should be no ability for issuers to opt-in/opt-out of treatment/non-treatment. Sample selection and treated assignment should remain at the discretion of the CSA based on the work of the academic group leading the study.

Inclusion of Exchange Traded Products

Perhaps one of the most complex considerations in the formation of both the proposed U.S. and Canadian studies is Exchange Trade Products (ETPs). At present the U.S. study contemplates inclusion of ETPs. Participants in the U.S. articulated various complexities, confounding factors and competition considerations related to the inclusion of ETPs. Chief among these is the problem of "picking winners and losers" as it relates to the treatment/non-treatment of like (and presumed competing) products.

Generally speaking, our Committee believes that the impact of rebates on market quality in ETPs can reasonably be expected to differ materially from corporate securities. As instruments whose precise value can be derived by observing underlying securities, the difference with corporate securities lacking any such inputs to determine fair value is self-evident. Yet, while the aforementioned is sufficient to argue for a separate study of ETPs, it is not sufficient to generally argue for their exclusion from the study. The fact remains that ETPs are an important part of the trading landscape.

The request for comment correctly identifies the challenges to render the identification of matched pairs. The reasonable approach grounded in sound academic practices proposed for selecting corporates does not translate to ETPs. We are unable to offer a proven methodology for matching ETPs for the purposes of an academic study. We also do not have a solution for the controversy of "picking winners and losers".

Despite these challenges, some members of our Committee make a compelling argument that ETPs should nevertheless be included. This is because (a) they have been included in the U.S. study; (b) failure to include them would introduce a blind spot for future policy making; and (c) there could be important findings which, forgoing the chance to study them, could jeopardize the prospect for policy action.

As such, despite the challenges, our Committee requests inclusion of ETPs with matched pair identification conducted on a best effort basis. If no established methodology can be identified, we suggest taking the U.S. lead on the chosen approach. Consultation with Canadian ETP providers may help identify a method for treatment-control pairs. Consultation to address concerns of commercial bias across providers should be part of these discussions. Exclusion of ETPs should be considered an option only once all such efforts are exhausted. In the end, given the nature of ETPs, we believe they should be included if at all possible, but impact analysis should be examined discretely from corporate securities.

Regardless of whether ETPs are included in the study, we believe that the results that are observed should lead to policy-making that is applicable to all securities including ETPs. Any policy-making resulting from the rebate pilot should apply to the market as a whole, and not only to the securities that may have been covered in the study universe. This does not preclude differentiated treatment of securities on the basis of factors such as relative liquidity or breadth of participation. Rather, we believe that market structure decisions should not discriminate between asset classes on the basis of whether certain securities were included in a pilot study whose construction is necessarily limited by practical issues (such as the difficulty of constructing matched pairs in the ETP space).

Constraints on exchanges and ATSs for in-sample securities

One of the core questions related to the proposed pilot is how and to what extent exchanges and ATSs should be restricted in implementing fee reduction programs, incentives, etc. for in-sample securities that might seek to simulate the economics of rebates through alternative mechanisms. Likewise, there is likewise the question of whether the existing market maker, fee or volume incentive programs may undermine the goals of the study. Our Committee believes these are important considerations.

In general, for the pilot study to be robust, we believe that transactions in treated securities must not generate any fee reductions (i.e. rebates) based on volume or any other type of activity. This restriction should extend to non-trading costs, such as connectivity and market data fees. For clarity, this would include scaled fee reductions, discounts or other such transfer economics between treated security transactions or across treated or untreated securities. Any mechanism that has such effects would be likely to undermine the purpose of the study and should be prohibited over the study period.

In our view, market maker programs should conform to the aforementioned restrictions. We understand that some market makers in the U.S. have argued that as agency conflict is not a concern for their business that the pilot restrictions should not apply to them. We disagree as we believe that the core objectives of the proposed pilot extend beyond simply studying the impact of rebates on agency conflicts. In our view, the goal should be to understand how trading inducements in the form of trading fee rebates impact all market participants – this should cover both agency and principal players.

It is important to underscore that the proposed pilot should not be likened to government price control at odds with natural competitive dynamics. Price controls are typically implemented as ceilings/floors on costs of goods or services where that cost is some positive number. The proposed pilot does not aim to regulate such fees in this way and should not be seen as such.

To summarize, it is our view that exchanges and ATSs should be prohibited from offering any form of rebate or mechanisms which would have an economic effect similar to that of trading fee rebates. If exchanges wish to offer discounted fees to market makers, they should be explicit and not scale based on transactions in treated securities.

The remaining special case to be considered is the common exchange practice of tiered discounting. It is our view that the practice of broad-based tiered discounts in fees may be acceptable for the duration of the pilot provided that: (a) they are not scaled but are broad-based and stepwise tiered; (b) they are measured without regard to, or differentiated based upon treated/untreated status; (c) they do not in any way generate transfer economics within treated securities transactions (in particular active or passive trades) or between treated securities and other fee liable services that the marketplace may offer. Tiered discounting that meets these criteria would, in our view, be appropriate to offer over the duration of the proposed pilot.

We are pleased to see that Staff has contemplated the risk that marketplaces are likely to test boundaries with fee or market structure changes over the study period. Any proposed fee or major market structure change proposed by a marketplace during the duration of the pilot should demonstrate that they do not serve to frustrate the objective of the proposed pilot.

It should finally be noted that, some of our members believe that the only way to entirely eliminate conflicts in marketplace fee models would be through symmetrical pricing, suggesting that asymmetrical pricing increases the risk of complexity and conflict in trading fee models. Others believe that such a prohibition would be overly prescriptive in the context of the proposed study. However, given that the SEC pilot has introduced no such prohibition, we ultimately conclude that general alignment with the U.S. zero-rebate bucket in this regard should be sufficient to gain insight on the impact that rebates have on market structure.

Timing, Duration and Staggered Introduction of Non-Interlisteds

Our Committee is of the view that for the proposed study to be meaningful, it should comprise a long enough time horizon to be impactful to all participants. In other words, the economic cost of ignoring the study should be high enough to encourage changes in behavior for all participants. We believe the proposed one- to two-year horizon for the study should be sufficient to achieve this objective.

For the purposes of the timing of the proposed Canadian study, Canadian interlisted securities should precisely mirror that of the U.S. study. This will provide the purest possible environment for which to measure the impact of a no-rebate environment on this universe of securities. Likewise, the cessation of the pilot (when determined) should be coordinated.

We believe the staggered introduction of non-interlisted names is also reasonable. This will provide a basis for which to diversify against the risk of exogenous factors to contaminate the study. It will also provide an opportunity for Canadian participants to ready their systems for any challenges that might be experienced were the entire study to be implemented on one discrete date.

Market Quality Metrics and Analysis

Our Committee expects that a breadth of market quality metrics must be examined in order to maximize the likelihood of extracting meaningful results from the proposed study. Since participants weigh the importance of metrics differently depending on their economic interests, we expect subjectivity in the interpretation of the results. We also expect that an absence of metrics covering dimensions of market quality which are typically considered important by various constituencies would risk criticism of the proposed study as lacking legitimacy.

We would suggest consideration of the following additional metrics:

- A measurement of diversity of passive liquidity across securities. If the diversity of available liquidity across Canadian markets or for particular classes of securities changes, this could impact market quality.
- Diversity of order type usage as a possible gauge for market "complexity" level.
- The opportunity cost of near-side limit orders, posted at the NBBO, which go unfilled. We believe that these opportunity costs represent a significant portion of institutional trading costs, especially in the context of scheduled trading strategies (eg. TWAP, VWAP, POV). The effect of marketplace rebates on placement strategies in such algorithms, and in turn their overall performance, is of significant interest. We would welcome any research that may quantify the effect of a prohibition on rebates on aggregate performance as measured through the lens of unfilled resting orders.

Aside from these suggestions, our Committee believes the appointed academic team has selected appropriate metrics that span the dimensions of market quality typically cited by various participants. Our review of the calculation methodology suggests the team has aptly sourced academically accepted and rigorous means to calculate the various measures and adjust for exogenous factors such as market-wide macro-volatility.

We are also pleased to see that the CSA and academic team are taking steps to provide transparency into the code that will be used to calculate the metrics. We would however caution that technical suggestions submitted via the online code repository should be carefully vetted and, where the team deems necessary, subjected to industry and/or third-party verification.

Conclusions

We are supportive of the proposed study and the efforts on the part of the CSA to improve the trading landscape. While we generally believe that the Canadian trading fee rebate study should seek to coordinate with the proposed U.S. pilot, it is our view that differing our approach to that of the U.S. in the inclusion of ATSs is warranted and will generate results that will more informative.

We also believe that it is important to prohibit marketplaces from offering transaction-linked inducements or discounts on non-transaction fees. This is admittedly more aggressive than the U.S. approach. We believe this type of restriction limits room for behavior that may undermine the opportunity to obtain a clear view of what a rebate inducement-free market structure would look like. As such, along with the inclusion of ATSs, we feel this is an important way that the Canadian pilot would be correct to differ from the U.S. approach.

In closing, we would like to reiterate our confidence in the transparency and thoughtfulness of approach that the CSA and the academic team are taking to this important initiative. Our Committee stands ready to address further or more specific questions as the process unfolds.

Thank you for your attention in this matter.

Respectfully,

"Signed by the CSTA Trading Issues Committee"

c.c. to:

Ontario Securities Commission:

Ms. Maureen Jensen, Chair and CEO
Ms. Leslie Byberg, Executive Director & CAO
Ms. Susan Greenglass, Director, Market Regulation
Ms. Tracey Stern, Manager, Market Regulation

Alberta Securities Commission:

Ms. Lynn Tsutsumi, Director, Market Regulation

Autorité des marchés financiers:

M Dominique Martin, Director, Exchanges and SROs

British Columbia Securities Commission:

Mr. Mark Wang, Director, Capital Markets Regulation

IIROC:

Mr. Andrew Kriegler, President and CEO
Ms. Victoria Pinnington, Senior Vice President, Market Regulation
Mr. Kevin McCoy, Vice President, Market Regulation Policy

NATIONAL BANK
FINANCIAL MARKETS

March 1st, 2019

The Secretary
Ontario Securities Commission
20 Queen Street West
22nd Floor
Toronto, Ontario M5H 3S8

Me Anne-Marie Beaudoin
Autorité des marchés financiers
800, rue du Square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal (Québec) H4Z 1G3

BY ELECTRONIC MAIL: Comments@osc.gov.on.ca ; Consultation-en-cours@lautorite.qc.ca

RE: **CSA Staff Notice and Request for Comment 23-323 *Trading Fee Rebate Pilot Study,*** ("Proposed Pilot") published on December 18th, 2018.

National Bank Financial Inc. ("NBF") appreciates the opportunity to comment on the following Proposed Pilot. We support the CSA's stated mission to provide a securities regulatory system that protects investors from unfair, improper or fraudulent practices and fosters fair, efficient, and vibrant capital markets.

NBF is part of the diverse National Bank Financial Group ("NBFG") which: (i) manufactures mutual funds, owns proprietary distribution channels and supplies services to third party distributors; (ii) operates a discount brokerage firm; and (iii) is an IIROC-regulated investment dealer across Canada. We take great interest in initiatives contained in the Comment Paper and their potential impact on investors, the mutual fund industry, the investment industry and financial intermediaries.

NBF would like to emphasize that we are one of Canada's leading market makers in both ETF's and listed equities, in addition to an integrated broker-dealer offering equity & ETF research, sales, and trading services to Canadian investors of all sizes. As such, we believe our perspective in market structure topics like this one to be a holistic one, balanced between these very different stakeholders.

Accordingly, our intention is to share our concerns regarding the initiatives contained in the Proposed Pilot and provide significant suggestions. We trust that our comments will be considered during the review process and will provide a productive contribution to the outcome of the Proposal.

NBF strongly supports this Pilot Study. We have long been proponents of reducing or eliminating rebates along with the high access fees (take rates) that enable them. We agree that, as the proposal points out, rebates introduce a handful of manageable but meaningful conflicts of interest to marketplace stakeholders. Their removal would simplify Canadian market structure significantly, improving the efficiency *and fairness* with which orders from liquidity providers and demanders can be matched.

We acknowledge that the CSA and the study designers have consulted heavily with industry stakeholders to draft this proposal as published. We will focus our comments here on the questions proposed in the Appendix II in the proposal to be as efficient as possible. Our largest focus will be in the 7th question concerning the inclusion of ETP's in the study where, in brief, we strongly believe they should be included.

NATIONAL BANK FINANCIAL MARKETS

Questions from Appendix II

1. We propose to define a security as medium-liquid if it trades at least 50 times a day on average and more than $50,000 on average per trading day over the past month. Do you believe that this definition is appropriate? If not, please provide an alternative definition and supporting data, if available, to illustrate which securities your definition captures.

NBF agrees that this is a reasonable hurdle. By our measure, this puts approximately 360 names in the highly liquid bucket and another 300 in the medium bucket.

NBF would suggest, should the pilot agree to include ETFs, that the two buckets be combined as one, with approximately 200 ETF names included.

2. We propose to introduce the Pilot in two stages, with non-interlisted securities first, followed by interlisted securities. Do you believe that such staggered introduction will cause material problems for the statistical analysis and the results of the Pilot? If so, please describe your concerns in detail.

NBF sees no issue with the staged introduction, provided that it is coordinated with the SEC pilot (as has been widely discussed). It is already relatively common to support different routing profiles for these two groups, so we anticipate it will be relatively straightforward for participants to adapt to such an approach.

Regulators will need be cautious analyzing differences between interlisted vs non-interlisted market quality metrics. If they plan to implement separate rebate restrictions on these groups, any market disturbances that occur in one time period only should be recognized or simply discarded from the results.

3. Several Canadian marketplaces offer formal programs that reward market makers with enhanced rebates in return for liquidity provision obligations. On the one hand, such programs may benefit liquidity. One the other hand, one of the primary objectives of the Pilot is to understand if rebates cause excessive intermediation. In your opinion, should exchanges be allowed to continue using rebates or similar arrangements for market making programs during the Pilot? Do you believe any constraints on such programs during the Pilot to be appropriate?

While rebates and financial incentives toward liquidity provision have always been appreciated by our market making program, they have never been a key driver for us. Removing these rebates would not change how *much* liquidity we would be willing to offer. However, it would affect the price levels at which we would offer liquidity, as marketplace fees & rebates included in our pricing models. Taking these considerations into account, a no-rebate regime is fairer, in our opinion, in that the investor is paying for their liquidity rather than their agents.

It's a slippery slope to allow other non-rebate incentives, of course. Anything more nuanced than a strait prohibition is difficult to measure and police both during the pilot study and afterwards. So it would be *easier* for the pilot to rule out any other venues' regimes incentivizing or providing discounts for market makers. But, naturally, we would like some! Some suggestions to consider for non-rebate incentives are *free* trading to the market makers as well as reduced or zero cost infrastructure services like connectivity sessions.

4. We propose to compute price impacts at the one- and five-second horizons. Do you believe that we should consider other horizons? If so, which ones?

NBF has No objections to these suggestions. Longer horizons would be helpful, especially in the medium liquid bucket. Five seconds may be too long for highly liquid securities as it would introduce enough noise as to be not all that useful.

From the perspective of measuring the replenishment of liquidity provision, 5 seconds is plenty.

5. We propose to compute time-to-execution for limit orders posted at the CBBO prices or improving these prices. Do you believe that we should consider different price levels? If so, which ones? Please provide supporting data and analysis, if available, to demonstrate the empirical importance of order postings at other levels.

NBF agrees that CBBO or better is reasonable. Investors posting at levels outside the CBBO indicate an even lower urgency for "quick" execution; measuring time on an order in which time is not important seems counter-productive. In addition, please note that NBF believes the prevailing volatility regime will be a large influence on the results.

Measuring *size* outside the CBBO makes sense as it contributes to the overall liquidity picture, but time-to execution is only germane at the touch.

6. We propose a number of market quality metrics. Do you believe that we should consider additional metrics? If so, please outline these metrics and provide supporting data and analysis, if available, to demonstrate their empirical importance.

NBF proposes in Question 7 the inclusion of *investable dollar effective spread* as a metric to be considered for both matching and measurement. See below for elaboration.

7. Given the challenges that ETP matching presents, can the goals of the Pilot be achieved without including ETPs in the sample? If ETP inclusion is important, can you propose a way to construct a matched sample that addresses the concerns identified above?

NBF believes that omitting ETP's (ETF's) from this study would be a missed opportunity. As market makers, rebates do not influence at all how much liquidity we are willing to provide; but they do directly influence the prices we post. NBF also feels the elimination of rebates including ETPs will only serve to make markets more efficient and fair, supporting a cost regime much more in keeping with the overall ethos of the ETF structure: that investors pay their own way and enjoy overall lower costs as a result.

However, the Proposed Pilot's designers have cited a few problems regarding ETP/ETF inclusion: difficulties finding good matched pairs, possible substitution effects, and potential spillover effects from the ETF's underlying holdings containing pilot names.

These problems are not invalid. And yet NBF believes that solving these problems are worthwhile in the service of inclusion. It will be valuable to have good, empirical data on the potential effects of rebates to these issues across both ETPs and single issuers. The liquidity superstructure of ETPs is very different from listed equities, so it may be difficult to use the findings from the pilot informative if they are not included.

Our greatest concern in with their exclusion is the possibility that any resulting rule changes may not contemplate ETPs on account of lacking just this specific data.

Please find below a discussion from NBF on these problems and recommendations on how to adequately include ETPs in the overall study.

The Matching Problem

NBF has a few ideas about how suitable sets of matched pairs could be derived for Canadian listed ETPs. Please note that while including ETPs may be problematic, the Pilot would still be better off using the existing proposed framework on both listed equities and the ETP universe than not including them at all. NBF believe the CSA would still be able to glean interesting data points in such a scenario as to make it worthwhile.

NBF suggests a simple amendment to these proposed matching procedures for assigning Canadian-listed ETFs into the treatment and control groups of the Proposed Pilot. In the CSA proposed stock matching process, three metrics are used: trading volume, price, and market capitalization. NBF proposes a fourth metric: ***investable dollar effective spread (IDES)***.

Below is an explanation of this metric, which will be familiar to the ETF community (who simply call it "effective spread") but perhaps not to everyone. Following the explanation is a discussion as to the suitability of each of the four metrics.

NATIONAL BANK FINANCIAL MARKETS

Dollar Investable Effective bid/ask spread Ratio (IDES)

NBF defines the investable dollar effective bid ask spread at a single point in time to be the weighted average cost to fill an immediate round-trip order of certain notional amount, divided by the mid-price.

Note that IDES here is ***not*** the same as the Effective Spreads defined in the *Pilot IV. Empirical Measures and Analysis, page 15.* The former calculates spreads using quoted bid and ask prices, while the latter uses traded prices. (This is why we've had to make up the more complicated name!)

Notional amount is an important "input parameter" in calculating this investable dollar effective bid ask spread. If the notional amount is too small, say less than $25,000, then one might calculate an IDES value that captures retail orders and/or other HFT orders quoting inside of the market makers. If the notional amount is too large, the resulting IDES might appear wider that would be experienced in a legitimate call for liquidity, failing to account for the market makers' ability to "replenish" their quotes. Generally, ETFs with similar underlying assets and/or similar implied liquidity typically have similar IDES.

At first glance, one might think the use of IDES in the matching procedure can introduce bias in the empirical analysis, which will evaluate different spread metrics to gauge the trading activity. However, we argue this will not be the case because our IDES reflects the depth of spread, which does not interfere with analysis of "change of spread" after introducing no-rebate treatment. Further, our IDES metric measures a "deeper level" of spread calculated using a larger notional amount, whereas the spreads in the empirical analysis are measured only from traded prices and top level (superficial level) quotes.

The average IDES can be calculated using intraday tick-by-tick IDES from all Canadian Marketplaces, and time-weighted for a period of time. ***We propose using a one-month average IDES for the notional amount of $50,000 as an additional matching characteristic.*** The IDES at $50,000 data is obtainable as it is a mandatory calculation as per the *CSA mandating a summary disclosure document for exchange-traded mutual funds and its delivery dated December 8, 2016.*

Comments on Matching Characteristics

NBF has tested several matching characteristics combined and separately, then used a combination of asset class, geography, and leverage/inverse indicators to assess the matching results. The best outcome came from using all four metrics: dollar trading volume, price, size, as well as spread (BAS at $50,000 notional) as the ETF.

NATIONAL BANK
FINANCIAL MARKETS

Below is a discussion of our results:

- **The Number of metrics used:** matching ETFs using just any one of the four metrics was not able to deliver satisfactory results. Of the four, spread and price have relatively better results while size gave the worst matching when used in isolation.

- **Investable Dollar Effective Spread:** As mentioned above, IBES is an important metric to include. It is a good gauge of an ETF's liquidity as reflected by its underlying asset. This can help to match ETFs with similar liquidity, and it can also help to match ETFs with similar underlying assets. We used the natural log of the spread in basis points (i.e. ln[%spread * 10,000]) in the calculation.

- **Price:** NBF agrees with using this metric. ETF prices are set by the issuers at the fund inception with considerations such as retail vs. institutional target (i.e. lower price for retail-focused ETFs), $ trading cost sensitivity (i.e. more sensitive therefore higher price for lower return ETFs), etc. After inception, the price will be a function of market performance. Similar asset class tends to have similar performance. Therefore, the price is a meaningful metric for matching ETF characteristics. Also, since rebates are priced in $/share it will harmonize the effects in pairs when bps are being measured.

- **Trading Volume:** NBF agrees with using this metric. ETFs are typically viewed as having two layers of liquidity: ETF's own liquidity (reflected by trading volume), and its underlying assets' liquidity (reflected using Effective Spread and, ultimately, primary market activity).

  Trading volume metrics can help match ETFs with similar "top" layer liquidity. A higher trading volume often implies great natural two-way flow in an issue. It might also signal a higher level of unnecessary intermediation. Therefore, matching using this metrics can also help match ETFs with a similar levels of natural investor flow as well as "unnecessary intermediation".

  Of note: When the match error is calculated (as defined in Pilot page 20) for individual characteristics, values are universally lower when using trading volume as opposed to other metrics such as Spread, Price, and Size. This reduces trading volume's influence in calculating the total match error. Therefore NBF proposes using 3 x [(Ci – Cj) / (Ci – Cj) ^2] to bring trading volume to a more comparable level. The difference is most noticeable when there are fewer 'characteristics' in calculating the total match error.

- **Size:** NBF agrees that size is <u>not</u> relevant when comparing ETFs with similar underlying assets. As mentioned previously, NBF found that size was the worst matching metric when used by itself. However, it has shown some merit when matching inverse and leveraged ETFs within the pool of highly liquid ETFs. Therefore, NBF recommend to **include size** if this is still a consideration.

ETF Asset Class Considerations

ETFs provide exposure to many asset classes, including Canadian Equity, U.S. Equity, Foreign Equity, Fixed Income, Commodities, Inverse/Leverage ETFs and more. (*Full list in Figure 1. below*)

Each asset class has different drivers for price returns. Events that might impact one asset class do not necessarily have a similar impact to another asset classes. This results in two possible implications worth considering:

When pairing ETFs, matching within the same asset classes is preferred. However, this might not be feasible as there are only a limited number of highly liquid ETFs in asset classes like Commodity and multi-asset. As such, in our matching proposal **we do not impose asset class restriction, but rather, mindfully include spread and price metrics,** which have some ability to match asset classes. In our test run, about 40% of the resulting matches fall under the same asset class.

When conducting statistical analysis: VIX might be a suitable control for U.S. Equity while the S&P GSCI Index might be suitable as an addition for Canadian equity ETFs, though neither might be suitable for other asset classes such as fixed income. **Other controls should be considered in these cases.**

On Spillover Effects

The Pilot mentioned two spillover effects. **The first spillover effect relates to** the possibility of an ETF's underlying basket being significantly affected. As mentioned above, ETFs provide exposure to many asset classes, including Canadian Equity, U.S. Equity, Foreign Equity, Fixed Income, Commodities, Inverse/Leverage ETFs and more.

During stage 1 of the Pilot, when only non-interlisted Canadian stocks are included, most ETFs will not be impacted at all since they do not hold Canadian stocks. Out of the 195 highly liquid and medium liquid ETFs, only 36 are Canadian-equity focused (*Figure 1*).

Additionally, those stocks' impact to Canadian equity-focused ETFs will be relatively small. This is because the highly liquid and medium liquid non-interlisted stocks only represent ~25% of the S&P/TSX Composite Index, which is the selection universe for almost all Canadian equity-focused ETFs. Once the non-interlisted stocks are paired into groups, only about half of this list will be treated with no-rebate. So on average, only ~13% of each ETF's portfolio will be affected at all.

During stage 2 both Canadian and U.S. stocks will start the Pilot test. The spillover effect is possible on ETFs holding Canadian and/or U.S. stocks. Global-focused ETFs typically hold about 50% U.S. equities and 5% Canadian equities, so they might also be impacted. However, International Developed equity, Emerging Markets equity, Fixed Income, and Commodity ETFs will not have this concern. In sum, about half of the highly liquid and medium liquid ETFs might be impacted by the spillover effect originating from underlying stocks (Figure 1).

NATIONAL BANK FINANCIAL MARKETS

The second spillover effect involves similar ETPs that might be viewed as substitutions. This substitution problem might be mitigated by the following two steps:

For selected highly liquid ETFs, we group all ETFs that track the same or very similar indices into one treatment/control group during the matching procedure. We select their matching pairs with the constraint of not tracking the similar index. For example, if all S&P/TSX 60 ETFs are grouped into the treatment group, each of these ETFs will be matched with an ETF that does not track the S&P/TSX 60s. In this way, there will be no incentive for someone to switch from trading one S&P/TSX 60 ETF to trading another S&P/TSX 60 ETFs for the purpose of getting a fee rebate.

ETFs that track the same index can have a wide range of size and liquidity. The Pilot only tests for highly liquid and medium liquid securities. A Less liquid ETF might not be included even though it tracks a similar ETF. In order to mitigate the substitution effect, NBF would apply the same treatment to these less liquid ETFs. However, they will not be paired and will not be included in the difference-in-difference analysis.

NATIONAL BANK FINANCIAL MARKETS

Sample Matching Procedure using Highly Liquid ETFs

1. Begin with a sample of 117 ETFs included in the High Liquid security list published by IIROC on Jan 15, 2019. (http://www.iiroc.ca/industry/rulebook/Pages/Highly-Liquid-Stocks.aspx).

2. For each possible pair, estimate a match error using the formula proposed by CSA, where *Ck* are the following metrics as defined above, using one-month daily average

- natural log of ETF price
- natural log of ETF effective bid ask spread in basis points
- three times the natural log of ETF dollar trading volume
- natural log of ETF size

3. Remove possible pair combinations in which both ETFs track the same or have a very similar underlying index.

4. Sequentially select pairs with the lowest matching error until all stocks are allocated a pair. There are a total of 58 pairs.

5. For each pair, assign ETFs into the treatment or control group with the goal of placing all ETFs with a similar index into the same group. However, it was found in our test run that there are still 4 ETF pairs that cannot be grouped with their peer ETFs (i.e., they have group assignment conflicts). These 4 (out of 58) pairs are then broken into individual ETFs and are grouped into treatment or control groups with similar ETFs. Essentially the pairs that have assignment conflicts can still be grouped into treatment or control groups with similar ETFs, but they will not be used in for difference-in-difference analysis.

There will be more ETF pairs with assignment conflicts when including both highly liquid and medium liquid ETFs. However, this step and step 7 will help to reduce spillover effects mentioned previously.

6. For the pairs that have no assignment conflicts, randomly assign one ETF in each pair for treatment, retaining the other stock as a control.

7. For all ETFs in the treatment group, check to see if there are less liquid ETFs with similar indices. Include these less liquid ETFs in the treatment group in order to avoid the “ETF substitution effect”.

NBF has run a test sample and would be happy to share these results with the CSA and the study designers should they be seriously considering our recommendation to include ETP’s in the Proposed Pilot.

NATIONAL BANK FINANCIAL MARKETS

Figure 1 - Canada-Listed ETFs Avg Daily Stats Full-year 2018												
Asset Class	Assets* CAD $M		Dollar Trading Volume $M		Number of Trades		Number of ETFs		Num of Highly Liquid ETFs**		# High+Medium Liquid ETFs	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
Canadian Equity	40,387	26%	483	35%	22,314	26%	97	12%	23	20%	36	18%
U.S. Equity	31,919	20%	209	15%	12,039	14%	160	20%	24	21%	30	15%
Global Equity	12,711	8%	52	4%	4,832	6%	112	14%	4	3%	12	6%
Other Equity	16,317	10%	120	9%	11,244	13%	138	18%	14	12%	27	14%
Bond: Cdn Aggr, Corp, and Gov't	32,389	21%	188	14%	6,402	8%	89	11%	19	16%	34	17%
Bond: Pref, Convertible, Sub-I.G., & Foreign	19,405	12%	122	9%	5,512	7%	116	15%	13	11%	24	12%
Commodity	1,148	1%	4	0%	526	1%	20	3%	1	1%	5	3%
Multi-Asset	2,685	2%	27	2%	2,773	3%	34	4%	7	6%	9	5%
Leveraged & Inverse	903	1%	171	12%	19,003	22%	22	3%	12	10%	18	9%
All Canadian ETFs	**157,864**		**1,377**		**84,645**		**788**		**117**		**195**	

**Assets excludes dual-listed, or advisory class ETFs; ** Highly Liquid ETFs included in the IIROC Jan 15, 2018 file;*
Source: National Bank, ETF providers in Canada and U.S., Bloomberg

Conclusion

NBF strongly supports this Proposed Pilot. Our comments above seek primarily to enhance its effectiveness.

NBF looks forward to participating in the proposed pilot. The costs to the pilot implementation are relatively small considering the wealth of data expected in pursuit of improved policy with regards to this complex debate.

NBF has included significant suggestions above; and would be happy to provide more detail or answer any further questions as required in order to improve the quality of this important Study.

Etienne Dubuc
Executive Vice President and
Managing Director,
Head-Equities
National Bank Financial Inc.

Martin Gagnon
Co-President and Co-CEO
National Bank Financial Inc.

Cc:
Judith Ménard, Vice-President and Chief Compliance Officer, National Bank Financial

Nasdaq

March 1, 2019

VIA EMAIL

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission, New Brunswick
Superintendent of Securities, Government of Prince Edward Island
Nova Scotia Securities Commission
Office of the Superintendent of Securities, Service NL (Newfoundland and Labrador)
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Department of Justice, Government of Nunavut

The Secretary
Ontario Securities Commission
20 Queen Street West
Suite 1900, Box 55
Toronto, Ontario M5H 3S8
Fax: 416-593-2318
comments@osc.gov.on.ca

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal, Québec H4Z 1G3
Fax: 514-864-6381
consultation-en-cours@lautorite.qc.ca

Re: CSA Staff Notice and Request for Comment 23-323 *Trading Fee Rebate Pilot Study*

Dear Sirs/Mesdames:

Nasdaq CXC Limited ("Nasdaq Canada" or "we") welcomes the opportunity to provide comments on the Canadian Securities Administrator's ("CSA") proposed Trading Fee Pilot that would apply temporary pricing restrictions on marketplace transaction fees applicable to trading in certain securities ("Pilot Study" and "2018 Notice").

Although we welcome meaningful reform in market structure, we believe that the Pilot Study violates the principle of proportionate regulation; violates the CSA's statutory mandate to foster a fair and efficient market; and fails to substantiate with data analysis a burdensome regulatory action. Restricting marketplace rebates will not address CSA concerns that marketplace fees create a conflict of interest for dealers when managing client orders, contribute to segmentation of retail orders or encouraging excessive intermediation on highly liquid securities. Instead, the Pilot Study will result in deteriorating market quality; harm participants and issuers; weaken competition between marketplaces; reduce Canada's ability to attract new entrants; and increase trading costs for investors.

Therefore we urge the CSA to consider less harmful alternative approaches to address its concerns including compliance reviews of dealer disclosure and best execution obligations, mandating that dealers pass-through rebates to clients, re-evaluate exchange guaranteed execution facilities that explicitly segment order flow and take a tiered approach to regulating trading fees. Using these approaches will help the CSA validate their concerns and better position it to evaluate whether any additional regulatory action is necessary. Finally, we believe the CSA should not move forward with the Pilot Study whether or not the SEC Access Fee Pilot is implemented. If there is an SEC Access Fee Pilot ("SEC Fee Pilot") it will provide a learning opportunity for the CSA without exposing the Canadian market, issuers, and investors to the risks and cost. We note however that the SEC Fee Pilot has recently been appealed on the grounds that the pilot program is unlawful under both the Securities Exchange Act of 1934 and the Administrative Procedure Act, does not promote competition and exceeds the agency's authority.

THE PILOT STUDY IS NOT JUSTIFIED BECAUSE IT IS INCONSISTENT WITH THE PRINCIPLE OF PROPORTIONATE REGULATION

We respectfully submit that the Pilot Study is inconsistent with the CSA's mandate to carry out proportionate regulation that requires the objectives of any regulatory action be proportionate to the costs and other restrictions that will be placed on the market participants. Recently in OSC Staff Notice 11-784 Burden Reduction ("OSC Burden Reduction Notice") staff acknowledged that one of the fundamental principles guiding the work of the OSC in meeting its statutory mandates under the Securities Act is that business and regulatory costs and other restrictions on the business and investment activities of market participants should be proportionate to the significance of the regulatory objective sought to be realized.[1] It follows that any regulatory action that introduces risks and imposes costs that are not proportionate to its regulatory objectives must therefore be interpreted as an unnecessary regulatory burden likely to introduce more harm than good.

The Pilot Study is predicated on unsubstantiated concerns lacking support from data driven analysis, uncertain benefits, and unclear objectives. The CSA's stated objective is "to study the effects of the prohibition of rebate payments by Canadian marketplaces and to provide an opportunity to understand any inherent conflicts for dealers and study both changes in order routing practices and impacts on market quality measures."[2] The reason for studying the effects of prohibiting marketplace rebates is that it may address concerns first raised by the CSA in the CSA Notice and Request for Comment Proposed Amendments to National Instrument 23-101 Trading Rules which included a review of the Order Protection Rule ("2014 OPR Review").

In the 2014 OPR Review, the CSA expressed concerns as to how the payment of rebates **may** be creating conflicts of interest for dealer routing decisions that **may** be difficult to manage, **may** be contributing to increased segmentation of order flow and **may** be contributing to increased intermediation on actively traded securities ("CSA Concerns"). Although a general description of these concerns is provided, no data is given to support the legitimacy of each concern and there is no explanation how each concern is measured. If there is a conflict of interest created for dealers when managing client orders, what data was

1 Please see: http://www.osc.gov.on.ca/en/SecuritiesLaw_sn_20190114_11-784_burden-reduction.htm.
2 Please see: http://osc.gov.on.ca/en/SecuritiesLaw_csa_20181218_23-323_trading-fee-rebate-pilot-study.htm.

Nasdaq CXC Limited ▪ Suite 900 - 25 York Street ▪ Toronto, ON M5J 2V5 ▪ TEL: 888.310.1560

used to substantiate this concern? If the use of fee rebates provided to different sides of a trade may be contributing to the segmentation of orders by type of client, how is segmentation measured and what level of segmentation creates a market integrity concern? Finally, if the payments of rebates may have led to a situation where there is intermediation of investor orders where sufficient liquidity already exists, at what level does the otherwise necessary intermediation required to create sufficient liquidity for a security become excessive? Without data to substantiate the CSA Concerns, the regulatory objective of the Pilot Study must be understood to be based on speculation, and without a clear explanation how concerns will be measured, we do not understand how conclusions from the Pilot Study will be made.

Requiring quantitative support to substantiate CSA Concerns is not only important from a policy making perspective but also because these concerns contradict the results of the Investment Industry Organization of Canada's ("IIROC") Best Execution Survey from 2014 ("Survey") for retail and institutional dealers. In the Survey only 6% of respondents engaging in full service retail or on-line retail trading business that used a Smart Order Router listed the cost/opportunity to capture rebates as a factor considered for routing decisions and this factor was the lowest ranked factor overall.[3] For participants engaging in institutional trading the result was the same. The cost/opportunity to capture rebates was also only considered by only 6% of respondents and also reported as the least important factor when considering making a routing decision.[4]

According to the OSC Burden Reduction Notice, proportionate regulation requires that the regulatory objectives sought to be achieved by any regulatory action must be proportionate to its risks and costs.[5] As we will expand on later in our response, the Pilot Study will introduce significant risks and will impose significant costs to investors and in particular retail investors. The restriction of marketplace rebates will negatively impact the market quality and efficiency of the securities where rebates will be restricted ("Pilot Securities"). The issuers of these securities will be placed at a disadvantage to their peers because of deteriorating liquidity profiles. Competition will be deterred as marketplaces will be limited in their ability to compete with one another (undermining the policy objectives of the ATS rules), and Canada will become less attractive to new entrants. Finally, the Pilot Study will result in higher costs to participants with a higher ratio of active orders to passive orders (active/passive ratio), a characteristic typical of retail dealers. Taken together, and in the absence of the clear benefits of regulatory objectives based on substantiated concerns, the Pilot Study cannot be considered consistent with the principle of proportionate regulation, the mandate of the Ontario Burden Reduction Task Force and therefore also unsupportive of the Government of Ontario's Open for Business Action Plan.

THE PILOT STUDY IS NOT JUSTIFIED BECAUSE IT IS INCONSISTENT WITH THE CSA'S MANDATE TO FOSTER A FAIR AND EFFICIENT MARKET

The Pilot Study is inconsistent with the CSA's mandate to foster a fair and efficient market. In the 2018 Notice the CSA explains that it "has been considering a pilot study on the payment of trading fee rebates

[3] See Criteria Influencing Retail Routing Strategy in section 3.3.2 of IIROC Notice 14-0082 Best Execution. Survey Results at http://www.iiroc.ca/Documents/2014/61ec2e27-7e15-4a42-9adc-5c7895d16c81_en.pdf.
4 See Criteria Influencing Institutional Rouging Strategy in section 3.3.3 of IIROC Notice 14-0082 Best Execution. Survey Results at http://www.iiroc.ca/Documents/2014/61ec2e27-7e15-4a42-9adc-5c7895d16c81_en.pdf.
[5] *Supra note* 1.

Nasdaq CXC Limited ▪ Suite 900 - 25 York Street ▪ Toronto, ON M5J 2V5 ▪ TEL: 888.310.1560

for many years in relation to its continued work to foster fair and efficient capital markets and confidence in capital markets."[6] The CSA's 2014 OPR Review lists seven essential characteristics of an efficient market:[7] Liquidity, Immediacy, Transparency, Price Discovery, Fairness, Market Integrity and Transaction Costs ("Efficiency Characteristics"). The CSA notes that these characteristics have been vital throughout the ongoing development of the Marketplace Rules and, in its view, any regulatory change necessitates consideration of the above-noted characteristics of an efficient and effective market in the context of our collective mandates to protect investors, and to foster fair and efficient capital markets.[8]

We commend the CSA for defining characteristics it views essential for an efficient market so they can be considered when evaluating a regulatory change. We note however that the CSA has ignored all seven Efficiency Characteristics when proposing the Pilot Study. The Pilot Study is not supported when evaluating its merits based on these Efficiency Characteristics as it will result in negatively impacting the quality of four Efficiency Characteristics while leaving three unchanged. The restriction of marketplace rebates will deteriorate **liquidity** by widening spreads and decreasing market depth as a result of increasing the cost to liquidity providers. **Immediacy** of Pilot Securities will be impacted as this loss of liquidity will limit the capacity of Pilot Securities to absorb large orders resulting in trades at or near the last sale price of the security. **Price discovery** will suffer due to widening spreads, a lack of market depth and in turn increased volatility. Finally, **transaction costs** will rise for any participant with high active/passive ratios (typically retail dealers) forcing them to pay new fees for active trades instead of the rebates they currently receive. If, as the CSA proposes, any regulatory change necessitates consideration of the Efficiency Characteristics, then such consideration does not justify the Pilot Study. Furthermore if the Efficiency Characteristics reflect those of an efficient market then the Pilot Study represents a regulatory action that will result in a less efficient market and therefore is inconsistent with the CSA statutory mandate to foster fair and efficient markets.

CSA CONCERNS NEED TO BE SUBSTANTIATED WITH ANALYSIS OF EXISTING DATA BEFORE REGULATORY ACTION IS TAKEN

Canadian regulators have access to a comprehensive data set dating back to 2011 that can and should be used for policy development and reform. The requirement that all marketplaces provide data to IIROC through individual marketplace Market Regulation Feeds ("MRF Feed") has resulted in a complete data warehouse of public and private order and trade information. Throughout that data warehouse, the trader responsible for entering each order is identified by a unique Trader identifier ("Trader ID") captured in the MRF Feed. The Electronic Trading Rule requires that all Direct Electronic Access clients ("DEA Clients") be assigned unique Trader ID and that information about each DEA Client and its Trader ID must be provided to IIROC.[9] This means that the order and trade information warehoused by IIROC can be attributed to specific traders and DEA clients that in turn can be used to analyze the behaviour of these participants.

[6] *Supra note* 2 at p. 1.
[7] Published at: (2014), 37 OSCB 4877.
[8] Published at: (2014), 37 OSCB 4878.
[9] See Section 4.6 at http://osc.gov.on.ca/documents/en/Securities-Category2/ni_20140301_23-103_unofficial-consolidated.pdf.

Nasdaq CXC Limited ▪ Suite 900 - 25 York Street ▪ Toronto, ON M5J 2V5 ▪ TEL: 888.310.1560

The CSA should use the most recent data from IIROC's data repository to perform analysis to substantiate its concerns. When the CSA first considered conducting a pilot study in 2014, reference was made to some data analysis done as part of the 2014 OPR Review. However, changes in markets conditions, market structure and other developments since 2014 have resulted in changes in behaviour that would not be reflected in data used in 2014. Developments include the introduction of new markets including dark pools and venues that apply systematic delays to active orders in addition to new industry sectors attracting significant retail participation. The 2018 Notice does not mention any further analysis performed using more recent data that supports the Pilot Study. Without supporting analysis performed using data that reflects current market structure, the legitimacy of the CSA's concerns cannot be verified.

The CSA should also use the opportunity to study the impact of an existing precedent mandating lower marketplace rebates. In 2017 the trading fee cap for non-inter-listed securities was decreased from $0.0030 to $0.0017 resulting in several marketplaces lowering their fees. As a result, marketplace rebates also decreased. Given there is an existing precedent mandating lower rebates, it should be used to study whether the lower rebate resulted in changes to dealer routing behaviour and the level of intermediation for more liquid non-inter-listed securities.

We believe the CSA should utilize IIROC's data repository to perform analysis resulting in support for CSA's Concerns before considering the introduction of the Pilot Study. Only after CSA's Concerns can be substantiated with data analysis can the regulatory objectives of the Pilot Study begin to be considered proportionate to its risk and costs.

CSA CONCERNS WILL NOT BE ADRESSED BY RESTRICTING MARKETPLACE REBATES

Concerns about Conflicts of Interest

In the 2018 Notice, the CSA reiterates its concern that the payment of a rebate by a marketplace raises a potential conflict of interest when a dealer must choose to route orders based on costs while routing orders in a manner that results in the best outcome for clients."[10]

The CSA's concern that there may be a potential conflict of interest created for dealers when making routing decisions in handling client orders is not created by marketplace rebates but instead by the economic impact of different marketplace pricing schedules. In a competitive environment marketplaces will compete with one another by using different fees to attract market flow from participants with differing trading objectives. The result of competition is that there will always be a marketplace offering a better economic incentive through either providing a higher rebate or charging a lower fee.

All other best execution factors considered, a dealer will always be incentivized economically to send client orders to the market with the most attractive economics. However the creation of this conflict does not differ from other potential conflicts of interest faced by dealers when handling client orders. Examples include the incentive to route orders to a marketplace where the dealer has an ownership interest and when routing decisions are made on the basis of a higher likelihood to internalize flow (often against

[10] *Supra note* at p. 2.

proprietary flow) rather than achieving best execution. In some cases these conflicts are compounded when dealers consider internalizing order flow on illiquid marketplaces where they have an ownership interest. Realizing that marketplace pricing is only one factor contributing to potential conflicts and that the conflict it creates will exist whether or not rebates are permitted, the question becomes not how to eliminate this conflict but instead how to manage it. We submit that the onus should be on the dealer to address this conflict and not the marketplace and if the CSA is concerned about execution quality for client orders that an action is taken to evaluate dealer compliance with their best execution obligations instead of restricting marketplace competition.

Concerns about Segmentation of Orders

The CSA has expressed concerns that different fee models that pay rebates to different sides of a trade may be contributing to the segmentation of orders by types of client and in particular retail dealers may tend to be cost sensitive to active fees.[11]

It is rational that a dealer handling an order where immediacy of trade execution is prioritized should, all things being equal, direct that order to the marketplace with the lowest cost. Similarly, dealers with higher active/passive ratios will tend to send more orders to marketplaces with better economics for active sides of their trades. We note that different participant's trading strategies and different composition of clients will result in different active/passive ratios for different dealers. Retail dealers tend to prioritize both immediacy and size discovery to lower back office ticketing costs. If an inverted venue offering better economics does not offer the opportunity for an order to be fully executed, these dealers will consider the potential benefit of lower explicit trading costs with higher ticketing costs resulting from the order trading on multiple venues.

In our opinion, concerns about segmentation of retail orders because of marketplace rebates will not be addressed by the Pilot Study because, all things being equal, dealers with a higher active/passive order ratios will continue to seek the least expensive venue to send marketable orders to in order to lower their explicit trading costs. Realizing this, the result from restricting rebates will be that trading costs for these firms will increase substantially. A second outcome (potentially unintentional) that should be considered by the CSA is that if the prohibition of rebates results in more than one marketplace offering the best economics for marketable orders (such as applying a zero fee), routing decisions will be made between venues based on the likelihood of internalization flow – adding to the increase in internalization rates which is a market integrity concern currently being reviewed by the CSA.

Concerns about Increased Intermediation on Actively Traded Securities

In the 2014 OPR Review the CSA highlighted "that while the payment of rebates has successfully increased the level of liquidity primarily in the most liquid securities, it may have led to a situation where there is intermediation of investor orders where sufficient liquidity already exists and is least needed."[12]

[11] *Supra note* at p. 3.
[12] *Ibid* at p. 14.

Nasdaq CXC Limited ▪ Suite 900 - 25 York Street ▪ Toronto, ON M5J 2V5 ▪ TEL: 888.310.1560

Some Securities require more liquidity support than others. Securities with characteristics such as high volume, high turnover rates and low volatility will always attract greater liquidity provision because these characteristics facilitate the objective of liquidity providers which is to capture the spread, manage risk and avoid adverse selection. Consequently, although the proposed restriction on rebates will impact to economics for liquidity provision on Pilot Securities it will not materially impact the level of intermediation on highly liquid names. Furthermore restricting rebates will not address a larger issue in the market of how to attract liquidity to less liquid securities. The issue of illiquidity for small cap and medium cap securities is now being faced in different global jurisdictions but is of particularly importance in Canada given that the majority of listed securities are not liquid, especially TSX-V listed securities. Restricting any marketplace feature that can encourage liquidity for even some of these illiquid names should be considered with extreme caution.

RISKS AND COSTS THAT WILL RESULT FROM THE PILOT STUDY

1) Negative Impact to Market Quality

The Pilot Study will negatively impact the market quality of Pilot Securities by deteriorating the liquidity profiles of these securities and in turn increasing implicit trading costs for all investors.

Marketplace rebates act as an economic incentive for market makers to take on greater risk by displaying trading interest and to make markets more aggressively; restriction on the use of marketplace rebates will harm market quality and increase implicit trading costs. The nature of liquidity provision is a function of the economics of the bid-ask spread and making a spread tight enough to compete with other market makers. The strategy of a traditional liquidity provider is to place orders on both sides of the market with the objective of capturing the bid-ask spread. Given short term imbalances in demand and supply, the result of the majority of these trades will be to break even. In order to be profitable, many small profits are required to be made in order to compensate for a few large loses. Also at risk is the fact that all quotes are susceptible to adverse selection where there is an informational advantage. Without marketplace incentives to subsidize the market maker for more instances of adverse selection, the liquidity provider will need to make wider and in turn inferior markets to compensate for being exposed to additional risk.

Trading costs for investors consist of explicit costs (marketplace fees and commissions) and implicit costs represented by crossing the bid-ask spread. Marketplace rebates coupled with competitive pressure among market makers, result in tighter spreads and larger sized posted orders which are available to marketable active orders. Economically, the higher the rebate provided – the greater risk that can be taken by a market maker to make better markets and in turn tighten the spread. Tighter spreads benefit all investors as they lower implicit trading costs. When considering the net impact of tighter spreads and a marketplace fee, a tighter spread will always provide a superior benefit as there is no decrease in the level of a marketplace trading fee that will ever compensate for the loss of a wider spread.

Concern about the negative impact on market quality that will result from the restriction of marketplace rebates is not theoretical. A recent study by Nasdaq's Chief Economist, Phil MacKintosh demonstrated that for NMS stocks, liquidity incentives (rebates) are important to creating two-sided markets across all stocks, especially thinly traded stocks. The data and analysis showed that liquidity incentives contribute significantly to market quality, liquidity and spreads and that the best spreads were found on markets that reward liquidity providers.[13]

The importance of rebates for liquidity provision is also highlighted by examples when marketplaces have lowered their fees and related rebates. In 2015 Nasdaq Canada lowered its fees (and related rebates) for ETF securities to levels significantly below those of the TSX ($0.0017 vs. $0.0023). Instead of resulting in increased market share because of the lower cost to actively trade, Nasdaq Canada lost market share for these securities. This provides evidence that liquidity provision encouraged by a rebate compensating providers for the risk to make better markets is more important in resulting in trades than applying lower fees to active orders. A similar outcome was observed in the United States when Nasdaq Stock Market lowered its access fees and rebates in fourteen stocks during the first four months of 2015. The Nasdaq market also lost liquidity and market share as fee sensitive market makers shifted their market making activity to other U.S. markets which continued to offer rebates and access fees similar to those offered by Nasdaq before the experiment.

If the Pilot Study is implemented and restrictions on rebates are introduced for Pilot Securities, we believe that they should apply equally to market making programs. The impact to liquidity provision from the removal of rebates should be studied for both exchange market makers and liquidity providers. If market makers do not provide the same level of liquidity, or do not fulfil their market making obligations, it will evidence the importance of the economic incentive that is required to compensate for the risk of making markets.

2) Impact to Issuers

The Pilot Study will negatively impact the liquidity profiles of issuers creating a disadvantage with peers without being afforded the right to opt-out of participation.

The CSA expresses its belief in the 2018 Notice that the Pilot Study will not harm issuers included in the Pilot Study because OPR will continue to apply to marketplaces that display protected orders. Furthermore the temporary elimination of trading rebates for certain securities may make it less expensive, and consequently more attractive, to transact in those securities, which also may offset the reduced rebate incentive and attract liquidity.[14] We respectfully disagree. OPR only focuses on the active side of the trade and not on liquidity provision. Whereas active orders are mandated by OPR to be directed to the marketplace with the best protected lit order, a passive order is free to post on any marketplace. Referring back to the earlier discussion on the economics of liquidity provision, it is not the assurance of receiving an execution by being the best priced lit limit order that motivates liquidity provision, it is the economic incentive weighed against the possibility of adverse selection that determines at what price a quote will be made. Without the support of the rebate, liquidity providers for Pilot Securities will be forced to quote at inferior prices which will result in wider spreads.

Issuers that are included in the Test Group will be unfairly disadvantaged by deteriorating liquidity when compared to their matched pair equivalent securities outside the Pilot Study. Recognizing this impact, at a

13 See Risks and Incentives for Market Makers in US Equities https://www.sec.gov/comments/s7-05-18/s70518-4814879-176987.pdf
14 *Supra note* at p.5

Nasdaq CXC Limited ▪ Suite 900 - 25 York Street ▪ Toronto, ON M5J 2V5 ▪ TEL: 888.310.1560

minimum we strongly encourage the CSA to reconsider the recommendation we made in response to the 2014 OPR Review to consult with issuers when considering having their listed security be included in the program and to provide issuers the right to elect to opt-out of participation.

3) Impact on Competition

The Pilot Study will negatively impact competition by limiting the ability for marketplaces to compete with one another and weaken Canada's competitive position to attracting new entrants.

Restricting marketplace rebates will undermine the policy objectives of the Marketplace Rules. The regulatory objectives of the Marketplace Rules when they were first introduced were "to provide investor choice, improve price discovery and decrease execution costs."[15] Since their introduction in 2001 the CSA has acknowledged the benefits of a competitive environment for equity marketplaces as marketplaces have introduced different fee models, faster innovative technology, and new order types."[16] In other words competition has resulted in its intended design in encouraging innovation and lower costs for participants.

The restriction of marketplace rebates will compress the range of permitted fees that a marketplace can apply and in turn will constrain one area where marketplaces are able to compete for limit orders. Typically customers respond to differences in fees by optimizing the most favourable economics for routing orders. As the largest competitor to the incumbent we can attest that this is not the case in Canada yet as many dealers continue to preference the incumbent irrespective of opportunities for shorter queue times, better fill rates, lower trading costs and better execution on other marketplaces. This is evidenced by the incumbent continuing to capture over 50% market share compared to its closest competitor with around 20% market share. Whether this is because of slower adoption or a competitive landscape where order flow is concentrated in the hands of a few participants, differences between marketplaces fees continue to provide opportunities for marketplaces to compete with the incumbent and provide opportunity to lower costs for participants.

The Pilot Study will also damage competition by adding further complexity to Canada's already complex market structure, making Canada less attractive for new entrants. Canadian market structure today is highly complex relative to its size. Robust regulations such as a full depth order protection rule, IIROC's dark rules, ETR requirements, order handling rules etc. although contributing to market integrity and investor protection also place demands on new entrants from both an educational perspective and technological perspective. In addition to these demands, a new entrant will need to consider additional pricing categories for Pilot Securities when making trading decisions. We are concerned this will result in making Canada less attractive to investors considering entering the market. At a time when overall volume levels are decreasing, anything that discourages new entrants who represent an opportunity to grow Canada's equity market needs to be clearly justified.

[15] Published at (2001), 24 OSCB (Supp).
[16] Published at (2014), 37 OSCB 4879.

4) Increasing Trading Costs for Participants including Retail Dealers

Restricting marketplace rebates will result in significantly higher trading costs for retail trading desks.

Marketplace fees were cited as one of the direct costs connected to the captive consumer issue created by the Order Protection Rule and leading to the 2014 OPR Review; "Regarding trading fees, participants raised specific concerns about the implications of OPR on their costs to execute marketable order flow, given that OPR necessitates that participants trade with the best-priced displayed orders, regardless of the level of fees charged by marketplaces displaying those orders."[17] Participants most affected at that time were those with high active/passive order ratios resulting in increased explicit trading costs (although all investors benefited with lower implicit trading costs). The inverted maker-taker fee model, introduced by CX2 in 2013 was designed as a marketplace solution to address this unintentional outcome created by OPR. By providing a rebate to active orders, CX2 provided a similar economic incentive for active orders that was only available to passive orders. The Pilot Study will restrict rebates on inverted venues. The result will be that trading costs for dealers' with high active/passive ratios will significantly increase.

ALTERNATIVE APPROACHES ARE AVAILABLE TO THE CSA TO ADDRESS CONCERNS

We encourage the CSA to consider the use of the following alternative approaches to address its concerns,

1) Potential Conflicts of Interest Created by Marketplace Rebates.

   a) *Use of Compliance Reviews for Disclosure and Best Execution Obligations*

A fundamental tool used by regulators to address conflicts of interest is the use of disclosure which requires that information be provided to clients about dealer conflicts so that they can make their own decisions. Both the CSA and IIROC have established general frameworks in place today for dealers to address conflicts of interest. National Instrument 31-103 ("NI 31-103") and IIROC Dealer Member Rule 42 ("IIROC Rule 42") require dealers to identify and manage conflicts of interest through avoidance, disclosure and other tools. Recently the CSA Client Focused Reform proposed amendments to NI 31-103 includes a best interest standard where all conflicts of interests must be resolved in the best interest of their clients, and where this is not possible the conflict should be avoided. Similarly IIROC Rule 42 today requires that "any existing or potential material conflicts of interest between an Approved Person and a client must be addressed by the Approved Person in a fair, equitable and transparent manner, and consistent with the best interests of the client or clients" and, that "a conflict of interest between an Approved Person and a client must be addressed by avoiding the conflict, or must be addressed at least in part by disclosing the conflict of interest to the client."[18] Given that robust disclosure frameworks are in place for dealers today, we suggest a similar approach using disclosure if the CSA is concerned that marketplace rebates may create a potential conflict of interest for dealers when handling client orders.

[17] Published at (2014), 37 OSCB 4881.
[18] See Rule 42.2 at http://www.iiroc.ca/Rulebook/MemberRules/Rule00042_en.pdf.

The use of the Pilot Study to address the conflict created by marketplace rebates represents an exception to the current regulatory approach taken to address other conflicts by attempting to eliminate its potential cause instead of managing it. We do not understand the basis for making this exception especially as regulatory intervention is not being proposed to address other conflicts that impact routing decisions such as when dealers could route orders to a marketplace based on ownership interest. It would appear that it is a lack of confidence by the CSA in dealers' ability to manage the conflict that explains the need for regulatory intervention. Given current disclosure and best execution requirements we believe that reviews of current requirements may be a more appropriate approach.

New amendments to IIROC Best Execution of Client Order Rules ("Best Execution Rule") introduced on January 2, 2018 include requirements for disclosure and best execution policies and procedures. Under the Best Execution Rule dealers must describe any material conflict when sending orders and how these conflicts are managed.[19] Firms are also required to provide written disclosure to their clients including a description of the firm's best execution policies, the factors considered for achieve best execution and a description of the dealers order handling and routing practices.[20] Included in client order handling disclosure is information about whether routing decisions are based on fees paid or payments received.[21]

The Best Execution Rule introduced an explicit requirement for dealers to establish maintain and ensure compliance with best execution policies and procedures and ensure traders know and understand firm policies. Dealers must identify the specific factors that are considered in their best execution policies and procedures for the purpose of achieving best execution. These factors now include how changes to routing tables are determined and the circumstances under which a Dealer Member will move an order entered on one marketplace to another marketplace.

Given the disclosure and best execution requirements in place today we suggest that a more appropriate alternative for the CSA to address its concerns with routing conflicts is to conduct comprehensive compliance reviews of dealer disclosure and best execution obligations at least as a first step. The results of these reviews will determine if this conflict is being properly managed or will identify compliance deficiencies that can be remedied. Either outcome should alleviate the concern while avoiding the unnecessary risks and costs that will be introduced by the Pilot Study.

The need for compliance reviews of dealer best execution obligations is highlighted by the continued practice by dealers to post nearly all retail orders on the TSX, calling into question how this practice is consistent with their best execution obligations. This practice was confirmed by both the 2014 OPR Review and IIROC's Best Execution Survey[22]. More recently, problems with this practice extend beyond best execution concerns as evidenced on July 2018 when the TSX experienced a system issue resulting in trading being closed for the last 3 hours of the day. During the outage many retail dealers did not accept orders from retail accounts directed to the Canadian market despite there being alternative marketplaces open for trading. Augmenting this weakness in Canadian market structure is the fact that retail orders directed to US markets including those for inter-listed securities were accepted.

[19] See Rule 3300.4 at http://www.iiroc.ca/Rulebook/MemberRules/Rule03300_en.pdf.
[20] See Rule 3300.11 at http://www.iiroc.ca/Rulebook/MemberRules/Rule03300_en.pdf.
[21] Ibid.
[22] Published at (2014), 37 OSCB 4880.

Nasdaq CXC Limited ▪ Suite 900 - 25 York Street ▪ Toronto, ON M5J 2V5 ▪ TEL: 888.310.1560

We believe that this practice is troubling from a best execution perspective that posting an overflow of orders on any one marketplace will decrease the likelihood of execution and strongly urge IIROC and the CSA to more closely examine this practice in the context of current dealer best execution obligations. In response to explanations we have heard that the reason for this practice is because only TSX data is provided to retail customers and posting orders on alternative marketplaces results in client confusion. We fail to see how the conflict between saving costs and providing retail investors' access to other marketplaces is being managed in the best interest of their clients. Is the cost of consuming at least one secondary source of market data enough to deny retail investors a better view of the Canadian consolidated market and be able to trade?

b) Requiring marketplace rebates to be passed onto clients

CSA should consider requiring dealers to pass-through rebates (and fees) to customers. Although mandating this practice will introduce further complexity and may be potentially unpopular with the institutional community, it will eliminate the conflict and the need for it to be managed which is consistent with the proposed approach by the CSA taken in the Pilot Study. However unlike the Pilot Study, taking this approach will not result in any new costs to investors or negatively impact market quality. Passing through rebates to customers not only will increase the level of dealer accountability but will also lead to opportunities to educate clients on the reason for existing practices.

2) Segmentation Concerns

Re-evaluation of Guaranteed Execution Facilities that Explicitly Segment Order Flow

If the CSA is concerned about the trend of increasing segmentation of order flow, it should re-evaluate marketplace facilities that explicitly restrict the interaction of orders from certain types of account with all other orders. The tendency for certain participants to select marketplaces based on differences between marketplace fees is a natural outcome of a competitive market. Differences in pricing, including different economics offered to different classes of participants do not restrict the interaction of orders from certain accounts with other orders. Recently there has been a trend for exchanges to offer or enhance guaranteed fill facilities where retail orders are interacting with market makers. The ability to restrict the interaction of retail order flow was first proposed by Aequitas Neo Exchange ("Neo"). After Neo established an approval precedent the CSE introduced a similar facility, followed by the TSX that amended its market maker program and minimum guaranteed fill facility to provide more than the minimum size guarantee for retail orders. Nasdaq Canada has recently announced that it will introduce its own in Guaranteed Execution Facility on April 1st in order to compete with other exchanges. If the CSA is concerned about the impact of segmentation of order flow, we suggest that a re-evaluation of the benefits and costs of these facilities be performed first as an alternative to the introduction of the Pilot Study. When re-evaluating the impact of segmentation, consideration should be made of the benefits that these facilities offer retail dealers in providing greater certainty of execution and size discovery. Only when the concern that segmentation results in an inferior quality market is substantiated by data analysis should any regulatory action be considered.

Nasdaq CXC Limited ▪ Suite 900 - 25 York Street ▪ Toronto, ON M5J 2V5 ▪ TEL: 888.310.1560

3) Excessive Intermediation

Taking a Tiered Approach

Recognizing that certain securities will always attract more liquidity providers than others, there will always be the need for more liquidity on some names and sufficient liquidity provided for others. This outcome is the result of a one-size fits all model that treats all securities the same. Although concerns about excessive intermediation may exist for highly liquid large capitalization securities, the use of marketplace rebates serves to incentivize higher quality markets for less liquid securities. If the CSA wants to address its concerns that rebates result in excessive intermediation on certain names, we suggest it evaluates the use of different pricing models with restrictions on the level of rebates and fees for securities grouped together based on their liquidity or volatility profiles. Liquidity and volatility levels defining each group of securities should be clearly identified using IIROC data. Like other regulatory initiatives the benefits of taking this approach must be weighed against its costs. The introduction of new pricing categories for securities grouping will add further complexity to an already complex market. The period of time used to re-evaluate the securities in each group will lead to inefficiencies when the liquidity profiles of securities change in between the periods of categorization. And, understanding that the liquidity and volatility profiles of certain securities will always be more attractive to market makers, there will still be excessive and insufficient liquidity within a pricing category for certain names.

LEARNING FROM THE SEC TRANSACTION PILOT

We believe the CSA should not move forward with the Pilot Study whether or not the SEC Fee Pilot is implemented. However, if the SEC Fee Pilot proceeds, we recommend that the CSA let the SEC Fee Pilot be conducted independently of the Pilot Study. This approach will provide an opportunity for learning without exposing the Canadian market, issuers, and investors to the risks and cost discussed previously. Specifically, the CSA will be able to observe the impact of restricting rebates on liquidity and market quality in US traded inter-listed securities compared to these same securities traded in Canada where rebates will continue to be permitted. If rebates do in fact facilitate higher quality and more liquid markets, then the CSA will be able to confirm this belief while also positioning the Canadian market and participants to enjoy the benefits of higher liquidity on inter-listed securities traded in Canada. We acknowledge that differences in the design and scope of the SEC Fee Pilot and in the market structure of the Canadian and US markets will not allow findings from the SEC Fee Pilot to be directly applied to Canada. However general lessons will be made available for future consideration without incurring any costs.

Nasdaq CXC Limited ▪ Suite 900 - 25 York Street ▪ Toronto, ON M5J 2V5 ▪ TEL: 888.310.1560

CONCLUSION

We commend the CSA's continued consideration in assessing the need for regulatory action that may result in enhancing market efficiency. However at this time, without data driven analysis substantiating CSA Concerns and the real risks and costs that will be introduced by the Pilot Study negatively impacting the market, issuers and investors; we do not believe the Pilot Study is justified as it violates the principle of proportionate regulation and the CSA's mandate to foster a fair and efficient market. Instead we encourage the CSA to evaluate the use of less harmful alternative approaches to address its concerns including compliance reviews of dealer disclosure and best execution obligations, mandating dealers to pass-through rebates to clients, re-evaluating exchange guaranteed execution facilities that explicitly segment order flow and taking a tiered approach to regulating trading fees. Using these approaches will help the CSA validate concerns and better position it to evaluate whether any additional regulatory action is necessary. Finally, we believe the CSA should not move forward with the Pilot Study whether or not the SEC Access Fee Pilot is implemented. If there is an SEC Fee Pilot it will provide a learning opportunity for the CSA without exposing the Canadian market, issuers, and investors to the risks.

We thank the CSA for its consideration of these comments and would welcome the opportunity to discuss further our views with staff.

Sincerely,

Nasdaq Canada

Via email: comments@osc.gov.on.ca; consultation-en-cours@lautorite.qc.ca

March 1, 2019

The Secretary
Ontario Securities Commission
20 Queen Street West, 22nd Floor, Box 55
Toronto, Ontario M5H 3S8

and

Me Anne-Marie Beaudoin, Corporate Secretary
Autorité des marchés financiers
800, Square Victoria, 22e étage, C.P. 246, tour de la Bourse
Montréal (Québec) H4Z 1G3

Dear Sirs/Mesdames,

Re: CSA Staff Notice and Request for Comment 23-323 Trading Fee Rebate Pilot Study

This comment letter is being submitted on behalf RBC Dominion Securities Inc., Capital Markets and Wealth Management ("RBC" or "we"). We are writing in response to the Canadian Securities Administrators' ("CSA") Staff Notice and Request for Comment 23-323 Trading Fee Rebate Pilot Study published on December 18, 2018 (the "Proposal"). RBC appreciates this opportunity to comment on the above-referenced proposal to establish a pilot program to assess the impact of trading fee rebates on order routing behavior, execution quality, and market quality for interlisted and non-interlisted stocks. Our comments on the Proposal can be found below.

Overview

RBC strongly supports the Proposal and commends the CSA for the thoughtful and thorough work that it reflects. If adopted by the CSA essentially as proposed, and if implemented effectively, the pilot should provide data to enable the CSA to determine the impact of transaction-based fee rebates on order routing behaviour, on execution quality, and on market quality. That data can in turn be used by the CSA to support any appropriate reforms to Canadian equity market structure.

We have been encouraged that for a number of years the CSA has been considering a pilot study to look at the effects of the payment of trading rebates. We also believe it is beneficial for regulators to coordinate with their counterparts from other countries as our markets become increasingly interconnected. The coordination of the proposed pilot with a similar effort proposed in the United States increases the likelihood of success and minimizes potential adverse outcomes for interlisted stocks in the study.

We believe that the Proposal will provide valuable data to the CSA to determine the extent to which the current practice of payment of rebates is contributing to price opacity, increased intermediation within highly liquid securities, order flow segmentation, and conflicts of interest between brokers and clients, and thereby help the CSA to ensure that Canadian equity markets are more transparent, efficient, and fair for all investors.

Content

Subsamples
The Proposal's non-interlisted and interlisted subsamples are an essential feature of the pilot. Additionally, utilizing a phased approach and beginning the pilot with non-interlisted stocks should reduce the likelihood of unforeseen impacts. Adding interlisted stocks in coordination with the United States Securities and Exchange Commission Transaction Fee pilot should provide a seamless transition while reducing rebate arbitrage opportunities that would exist if the two countries acted independently. As the Proposal itself says, "the staggered introduction may alleviate concerns should the pilot begin around the time of an unexpected market-wide event." (Proposal @ 18) In addition, we agree with the match process and would further suggest that common stocks from as many sectors as practicable be included, to reduce the concentration risk an outsized exogenous impact could have on a specific sector, which could impact the results of the study.

Linked Pricing
In addition to prohibiting rebates, the pilot would also prohibit exchanges from offering a discount or incentive on transaction fee pricing "if such discounts are linked to the dealers' liquidity-providing activities." (Proposal @ 10) We fully support this prohibition. It is consistent with our view that "a pilot that limits or prohibits the economic incentive of rebates . . . without similarly restricting other inducements to trade, runs a serious risk of actually encouraging the use of such inducements and thereby undermining the integrity of the pilot." (See https://www.sec.gov/comments/265-29/26529-86.pdf at 3 (September 23, 2016 letter from RBC Capital Markets to former SEC Chair White)). For that reason, we believe that the prohibition on Linked Pricing should, if anything, be expanded to include a prohibition on any other inducements to trade, regardless of whether they are related to fee pricing. These inducements may include connectivity discounts, market data discounts, "…differentiated fees, bulk discounts, new order types, new venues and order books…", among others. (Proposal @ 18) Just as the Proposal prohibits Linked Pricing models because of their potential to distort order routing, execution quality, and market quality, so should it prohibit other inducements to trade that hold that same potential. To the maximum extent possible, the pilot should aim to ensure that trades are executed solely on the basis of transparent pricing of a stock.

Covered Trading Venues
We agree with the CSA that the pilot "be applicable to trading rebates paid by Canadian marketplaces, both exchanges and alternative trading systems ("ATS")." (Proposal @ 4) We further agree with the CSA that, in order to advance this objective of a broad study, the pilot should apply to inverted exchanges as well as to traditional exchanges. This approach is both logical and feasible.

Data Collection and Publication
We support the data collection and publication features of the pilot. As the Proposal states, "In the interest of transparency, we will make all codes publicly available via GitHub (the online code depository)." (Proposal @ 19) This will encourage more thorough analysis, and most importantly, will produce data and analyses that serve the core purpose of the pilot: to permit the CSA to assess the potential conflicts of interest, opacity, and fragmentation associated with transaction-based rebates and the effects that changes to those rebates have on order routing behavior, execution quality, and market quality.

Characteristics and Scope of Securities
We agree with the CSA's decision that the securities in the pilot should have a minimum threshold of medium liquidity at the time of the initial stock selection. (Proposal @ 11)

We believe that the impact of rebates on order routing, execution quality, and market quality is primarily a concern around the trading of larger, more liquid securities. Including in the pilot less liquid securities could have two negative impacts: first, the available liquidity for those securities could be adversely affected; and second, the extent to which rebates – rather than price movements – affect trading behavior and overall market quality in connection with more liquid securities could be more difficult to assess. For these reasons, we believe that the majority of securities within the pilot should be more liquid.

Similarly, we do not believe that, as a general matter, firms should be allowed to opt out of the pilot. Such a policy would, in our view, adversely affect the quality of the data and the credibility of the pilot. It could also potentially allow firms – including those with the largest, most liquid securities – to gain a potentially unfair advantage over competitors that decide not to opt out. Indeed, such a policy would create a perverse incentive for firms to opt out.

Timing and Duration

We endorse the Proposal's provisions for the duration of the pilot to match that of the SEC pilot on Transaction Fees. We also agree with the phased approach for the timing of the pilot, with non-interlisted stocks implemented first, as a way to minimize trade disruptions in interlisted stocks if the SEC's Transaction Fee pilot is delayed.

While there may not be any adverse effects in a Canadian rebate pilot for non-interlisted stocks, we are concerned about a regulatory arbitrage and the possible negative impact to interlisted stocks without a coordinated effort with the United States. Orders in interlisted pilot stocks may be concentrated at U.S. trading venues that offer trading rebates if the Canadian venues are prohibited from doing so in the same stocks. This could also have an impact on the results of the study. Therefore we recommend any study in interlisted stocks be delayed in Canada unless and until there is a coordinated effort in the United States.

Disclosure:

We also recommend that the CSA consider ways to increase disclosure around broker order handling. Specifically, increasing transparency around the handling of orders sizes greater than 50 standard trading units ("STU"), would benefit from additional broker order handling information upon request, including what venues their orders were routed to. This disclosure should encompass both venues that did — as well as those that did not — result in an execution. Brokers should also provide their institutional clients with information on their associated venue economics (e.g., average trading fees and rebates).

Technology:

We are sensitive to the technology cost impact of the pilot on the industry overall, particularly smaller dealers who execute institutional as well as retail orders. These technology cost constraints could impact the results of the pilot. Therefore we are hopeful that regulators consider the burden of these costs on the industry such that the impact to market participants is minimized so participation in the pilot is maximized.

Looking Forward: Potential Results, Reforms, and Benefits to Investors

Should the pilot be implemented as proposed and consistent with these comments, and should the data show that rebates are adversely affecting order routing, execution quality, and market quality, then we believe that the CSA should consider reform, including a substantial limitation, if not prohibition, on rebates for more liquid securities where data supports the conclusion that liquidity incentives are no longer necessary.

This reform is targeted and limited. It would not add significantly to the regulatory burden of the CSA or of market participants. And they would further the CSA's mission to protect investors; to maintain fair, orderly, and efficient markets; and to facilitate capital formation.

Conclusion

The CSA's proposal for a trading fee rebate pilot study is a carefully crafted, logical, modest, and data-driven step toward making Canadian equity markets more transparent, more efficient, and less conflicted. RBC applauds the CSA's action in putting the Proposal out for comment, we encourage continued progress in finalizing and implementing the Proposal, and we stand ready to provide the CSA with any additional information as it moves the Proposal forward.

Sincerely,

Rich Steiner
Head, Client Advocacy and Market Innovation

Cc:

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission, New Brunswick Superintendent of Securities, Government of Prince Edward Island Nova Scotia Securities Commission
Office of the Superintendent of Securities, Service NL (Newfoundland and Labrador) Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Department of Justice, Government of Nunavut

CANADIAN® SECURITIES EXCHANGE
The Exchange For Entrepreneurs

March 1, 2019

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission, New Brunswick
Superintendent of Securities, Government of Prince Edward Island
Nova Scotia Securities Commission
Office of the Superintendent of Securities, Service NL (Newfoundland and Labrador)
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Department of Justice, Government of Nunavut

c/o

The Secretary
Ontario Securities Commission
20 Queen Street West
22nd Floor
Toronto, Ontario M5H 3S8
Fax: 416-593-2318
comments@osc.gov.on.ca

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, rue du Square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal (Québec) H4Z 1G3
Fax : 514-864-6381
Consultation-en-cours@lautorite.qc.ca

Re: CSA Staff Notice and Request for Comment 23-323 - *Trading Fee Rebate Pilot Study*

Dear CSA Members:

CNSX Markets Inc. ("CSE") is responding to the CSA Staff Notice and Request for Comment 23-323 - *Trading Fee Rebate Pilot Study* ("Fee Pilot") published on December 18, 2018.

The CSE is not in favour of the Fee Pilot. With too many unknown unintended consequences, the likelihood of order flow arbitrage between Canada and the U.S., impacts on issuers that are involuntary and arbitrary, a stifling of competition (both among marketplaces and investment dealers), and the fact that the legality of the study is being challenged in the U.S. on various grounds, proceeding with the Fee Pilot at this time would not be prudent. If the CSA elects to proceed with the Fee Pilot, the CSE believes that it should be drastically reduced in scope – both in time duration (i.e. conduct only in parallel with the U.S.) as well as the number of securities included (if the number of matched pairs were reduced in half, there would still be sufficient data to be statistically significant).

The CSE also believes that it is ironic that at a time when the CSA has initiated several issuer regulatory burden reduction initiatives[1] and the Ontario Securities Commission is engaging with the

[1] *See* https://www.osc.gov.on.ca/documents/en/Securities-Category8/csa_20180524_81-329_investment-fund-issuers.pdf and https://www.osc.gov.on.ca/documents/en/Securities-Category5/csa_20180327_51-353_fund-reporting-issuers.pdf.

industry to identify and address unduly burdensome policies and rules generally,[2] the CSA, historically unwilling and unequipped to engage in price regulation in the industry, is proposing to introduce a costly and risky experiment upon the market. The burden of complying with the components of the Fee Pilot will be considerable and will be unevenly borne by the investment dealer community. Bank-owned investment dealers, with enormous compliance, technical and analytical resources will more easily be able to adjust routing tables and measure results for the different stocks included in the pilot than independent investment dealers who are already at a significant scale disadvantage in providing a competitive alternative.

The CSE is also concerned about the likelihood of unintended consequences. Several marketplaces already use incentives unrelated to execution fees to induce investment dealers to direct orders and trades to their venues. Some marketplaces, for example, pay for crosses. The only justification for this approach is these fees are more than made up for through higher market data fees that the venue can charge as a result of their higher market share. Will the terms and conditions of the pilot prohibit other incentives, such as volume discounts for investment dealers executing trades on a venue? We have also seen, in Canada and elsewhere, share ownership incentives provided by venues to investment dealers meeting certain trade volume thresholds. The simple fact is that if rebates are banned for the duration of the Fee Pilot, the marketplaces will find other means to compete for order flow and trade execution business. Unless every other term and condition of doing business with a marketplace is also "frozen", the study is unlikely to achieve its goals.

Canadian versus American market structure – order flow payment

As acknowledged in Appendix A to the CSA Staff Notice, there are important differences between Canada and the United States in market structure.[3] These differences are identified as the reason for conducting a separate Canadian study. On the face of it, it may be a reasonable approach. What is not acknowledged, however, is that there are many factors in the proposed Fee Pilot that give rise to significant risks to Canadian investors and the potential for unintended harm to Canadian equity market quality. We will focus on two significant considerations:

- As equity market structure has evolved in the U.S., most retail and institutional order flow is now executed away from the exchanges. Brokers receiving client orders will most often "sell" these orders to wholesale dealers (providing a fill to the client inside the publicly available bid/offer spread, while providing a payment to the dealer of 1/10th of cent per share), and then in turn work their open positions on a variety of non-exchange trading venues. The result of this model is that it is very rare for client orders to be executed on one of the exchanges in the U.S. In Canada, this "payment for order flow" practice contravenes the rules, which means that (in theory anyway) client orders will make their way to the exchanges and alternative trading systems ("ATS's") (collectively "marketplaces") for execution. This difference is important, because if the result of the pilot project in the U.S. is significant harm to the exchange price discovery process, then the parties immediately affected are the proprietary trading firms supplying most of the order flow to the exchanges. They are more than capable of re-directing their trading operations to properly functioning market centres (which, because they aren't exchanges, will be operating outside the constraints of the pilot). Canadian retail investors, and the investment dealers managing their orders, won't have this luxury. All the venues providing execution services for these client orders will be caught within the scope of the Fee

[2] https://www.osc.gov.on.ca/documents/en/Securities-Category1/sn_20190114_11-784_burden-reduction.pdf.

[3] *"Although the U.S. and the Canadian equity markets are similar, there are several key differences that may affect dealer routing decisions. Examples include the practice of retail order internalization in the U.S. and broker-preferencing in Canada."*

Pilot. If things go wrong, Canadians will have nowhere to go.

- The other consideration not acknowledged by the authors of Appendix A is that many of the fee models introduced by Canadian marketplace are designed to address the advantages that payment for order flow gives to U.S. broker/dealers over their Canadian counterparts. Prior to the implementation of these models, there was considerable suspicion in Canada that many investment dealers were routing client orders to the U.S. to take advantage of order payments. Canadian trading volumes and the price discovery process was harmed as a result. If, to take advantage of the payments offered by U.S. wholesalers, Canadian investment dealers route client orders to the U.S. for execution in the large number of liquid stocks covered by the Fee Pilot, then we are likely to see considerable harm to the price discovery process on the marketplaces.

Stifling of Competition

The time period for the proposed study is unduly long. If the SEC extends its pilot for the full 2 years (1 year plus an option year), the regulators are effectively proposing a 2½ year freeze on pricing for a significant number of liquid securities. The industry is, to be blunt, fed up with marketplaces introducing new order types and market venues employing new and unique execution modalities. Latency is no longer a competitive factor. Pricing, as a result, is the only practical means of differentiation and competition amongst marketplaces. Thus, there is an effective long-term freeze on competition for the trading of stocks included in the Fee Pilot.

The competitive landscape on the investment dealer side is also going to be skewed by the Fee Pilot. One of the fastest growing broker/dealers in the United States is Robinhood.[4] It operates exclusively on-line and offers trade execution services at a commission rate of 0%. The company earns revenues on, according to recent SEC filings, payments for orders and interest earned on client cash balances. A Canadian investment dealer, WealthSimple, recently announced the launch of a client service also offering trading commissions of 0%. With payment for order flow banned in Canada, the only way this competitive offering works is with the rebates currently paid by many marketplaces in Canada for "active" orders. The Fee Pilot would eliminate these payments for the stocks included in the study, seriously compromising the potential success of this initiative. We are very concerned that an unintended consequence of the Fee Pilot would be to limit competition in the provision of services to retail investors in Canada.

Legality of the U.S. study

As noted in the section on stifling of business strategy, removing price mechanisms restricts marketplaces in terms of competition. This is one of the key arguments being advanced in against the SEC regarding its fee pilot. More problematic, the U.S. legal challenges are squarely premised on the principle that the SEC has not articulated the problem it seeks to solve.[5] There is a parallel to Canada – insufficient justification in terms of the costs and benefits of the Fee Pilot is provided, when one considers the level of intervention the CSA is proposing to visit on the industry.

---

4 https://investing.robinhood.com/.

5 The fee pilot has been called a "data gathering" exercise that is insufficient to justify the program's disruptiveness and expense. https://www.wsj.com/articles/were-suing-the-sec-to-protect-the-stock-market-11550188636

Solution looking for a Problem

The Fee Pilot's rationale is premised on the notion that there are potential issues in Canadian market structure relating to conflicts of interest, increased segmentation, and "unnecessary" intermediation. However, none of these issues have been conclusively proven to exist or impact the market to an extent that warrants an intrusive and expensive study. There is no consensus among the academics or practitioners as to what constitutes an appropriate level of intermediation. In a time of looking to reduce regulatory burden, there should be a clear public interest rationale before instituting as far ranging and potentially disruptive market intervention as the Fee Pilot.

In terms of the potential issues raised in the CSA Staff Notice, there appears to be conflicting explanations. It is postulated that there could be potential conflicts of interest because investment dealers may route an order to a marketplace that pays a rebate rather than charging them a fee. Routing to such marketplaces, it is suggested, may result in lower likelihood of fills or longer time to fill (although if an order is not filled, no rebate would be earned, and the client may not be pleased with their order not being filled, both negatives for the investment dealer and presumably a situation that would be avoided by the investment dealer). On the other hand, in the segmentation of orders section, it is suggested that retail investment dealers would be more sensitive to immediacy of trade execution and that such investment dealers would route to inverted maker-taker marketplaces (to receive a rebate). In the conflict of interest section, a delayed fill while receiving a rebate is considered undesirable. Yet in the segmentations of orders section, immediacy of a fill with a rebate is considered undesirable.

Negative Impact on Issuers Included in the Pilot

The goal of the provision of fair and orderly markets is to reduce the cost of capital for companies from the public markets. We are very concerned that, at least for the securities of the issuers included in the framework of the Fee Pilot, the issuers themselves will be put at a disadvantage vis-à-vis their peers outside the pilot. Has any consideration been given to permitting the companies to opt out of the pilot?

Responses to specific matters raised in Appendix II: Questions for Market Participants

Question 2: "*We propose to introduce the Pilot in two stages, with non-interlisted securities first, followed by interlisted securities. Do you believe that such staggered introduction will cause material problems for the statistical analysis and the results of the Pilot? If so, please describe your concerns in detail.*"

CSE Response:

The CSE has concerns regarding the inclusion of non-interlisted securities in the Fee Pilot. There is no acknowledgement of the fact that non-interlisted securities trade over-the-counter in the U.S., and in considerable quantities. It is a fact that Canada's marketplaces are competing with U.S. markets for trade execution services for all publicly listed securities. With payment for order flow permissible in the U.S., these non-interlisted securities are subject to the very same competitive pressures as for the interlisted securities. The potential for negative unintended consequences regarding these non-interlisted securities is possible during the Fee Pilot. The CSE submits that if the Fee Pilot is to proceed, that it should parallel the U.S. study in the scope of its time period. This is especially true when, given the litigation initiated by the U.S. exchanges against the SEC, there is uncertainty as to when the U.S. study will commence.

Question 3: "*Several Canadian marketplaces offer formal programs that reward market makers with enhanced rebates in return for liquidity provision obligations. On the one hand, such programs may benefit liquidity. One the other hand, one of the primary objectives of the Pilot is to understand if rebates cause excessive intermediation. In your opinion, should exchanges be allowed to continue using rebates or similar arrangements for market making programs during the Pilot? Do you believe any constraints on such programs during the Pilot to be appropriate?*"

CSE Response:

Market maker rebates have been ingrained in Canadian market structure for some time. Although still a matter of some controversy, the notion is generally accepted by the industry that in return for providing an orderly two-sided market, the Designated Market Maker should receive certain advantages in the form of increased participation opportunities and lower fees or rebates from the marketplace. Limiting these incentives may cause negative unintended consequences in Canada during the Fee Pilot, as the services provided by the market maker are primarily aimed at improving trading outcomes for retail clients. It is reasonable to expect that agency order execution quality will suffer with the removal of market maker rebates.

Question 6: "*We propose a number of market quality metrics. Do you believe that we should consider additional metrics? If so, please outline these metrics and provide supporting data and analysis, if available, to demonstrate their empirical importance.*"

CSE Response:

The CSE suggests that, should the Fee Pilot proceed, the CSA track trades for both interlisted and non-interlisted securities to determine any change on leakage of order flow to the U.S. This would include volumes on not just the national securities exchanges, but also volume reported to the OTC Markets Group, the OTCBB and the alternative display facilities that capture trades occurring on proprietary dark pools and other broker operated systems in the U.S. To our knowledge, these venues have not been considered in any academic study of Canada-U.S. trade execution patterns.

Question 7: "*...[g]iven the challenges that ETP matching presents, can the goals of the Pilot be achieved without including ETPs in the sample? If ETP inclusion is important, can you propose a way to construct a matched sample that addresses the concerns identified above?*"

CSE Response:

The CSE sees no reason to exclude ETPs from the Fee Pilot. We believe that it is the intent of the U.S. pilot project to include ETP's in their study.

Other Factors to Consider

Payment for Crosses

Will payment for crosses be prohibited during the pilot? The CSE believes this should be the case in order to gain an understanding of the impact of such payment on trading.

Market Data Pricing

It is possible that the market data model that is in place in Canada has a significant impact on the fees and rebates applied on trading (e.g. marketplaces seeking to increase volumes to become "protected" and hence be able to charge corresponding market data fees). Payment for crosses (noted above) is a perfect illustration of this approach by some marketplaces. Understanding the impact of strategies designed to support market data feed needs to be taken into consideration in the study.

Client Fees

What will be the impact on client fees if the Fee Pilot proceeds? Will the ability of investment dealers to lower commissions for their clients will be compromised? Is there potential harm to investors in the form of higher commissions in addition to concerns over the price discovery process.

Conclusion

The CSE believes that while the Fee Pilot may be based on good intentions, its potential for significant (albeit unintended) harm undermines its *raison d'etre* (which is, in its essence, to collect and study data to see if there is a problem that needs solving). Unfortunately, there are too many questions about its design. Duplicating U.S. efforts at a time when the CSA members are undertaking regulatory burden reduction strategies is not only ironic but irresponsible. A study as proposed, at least in the U.S., may not even be legal.

It is guaranteed that unnecessary costs will be introduced into the Canadian capital markets. Correspondingly, the potential economic impact has not been assessed. It is not known whether clients will be better off, leaving aside the impacts on the marketplaces, investment dealers, issuers and other entities.

With the significant number of unknowns and unanswered questions, the CSA should proceed very cautiously. While the CSE is not in favour of the Fee Pilot, if the CSA elects to move forward, the CSE believes that the study should be drastically reduced in scope – both in time duration (i.e. conduct only in parallel with the U.S.) as well as the number of securities included (if the number of matched pairs were reduced in half, there would still be sufficient data to be statistically significant).

Respectfully submitted,

Richard Carleton
Chief Executive Officer

cc. Jamie Anderson – General Counsel & Corporate Secretary

IIACACCVM
INVESTMENT INDUSTRY ASSOCIATION OF CANADA
ASSOCIATION CANADIENNE DU COMMERCE DES VALEURS MOBILIÈRES

701 West Georgia Street | Suite 1500
Vancouver, BC | V7Y 1C6
604.637.1677 | www.iiac.ca

www.iiac.ca

Susan Copland, LLB, BComm
Managing Director
scopland@iiac.ca

March 1, 2019

The Secretary
Ontario Securities Commission
20 Queen Street West
22nd Floor
Toronto, Ontario M5H 3S8
comments@osc.gov.on.ca

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, rue du Square Victoria, 22e
étage
C.P. 246, tour de la Bourse
Montréal (Québec) H4Z 1G3
Consultation-en-cours@lautorite.qc.ca

Dear Sir/Madam:

Re: CSA Staff Notice and Request for Comment 23-323 -*Trading Fee Rebate Pilot Study* ("Proposed Pilot")

The Investment Industry Association of Canada (the "IIAC or Association") appreciates the opportunity to comment on the Proposed Pilot.

We believe it is a worthwhile exercise to study the effects of the prohibition of rebate payments by Canadian marketplaces, and ensure any proposed policy relating to trading fees is based on empirical data. Our members view this as a useful opportunity to improve the markets via a reduction of fees, if the data supports this outcome.

From a practical standpoint, in order to minimize market disruption and create a comparable data set, we support timing the Proposed Pilot to run concurrently with the Proposed SEC Transaction Fee Pilot. Members agree that there is merit to conducting a separate Canadian Pilot, owing to the key differences between the markets, such as internalization in the U.S. and broker-preferencing in Canada, that may affect dealer routing decisions. Understanding the differences and similarities between the systems, and the way in which they interact will assist in the development of an effective regulatory response, targeted to the Canadian context. If possible, members would like to ensure that the Proposed Pilot ensures that the differences in the marketplaces between US and Canada are specifically analyzed in designing and measuring the outcomes of the Proposed Pilot.

Although the IIAC advocates conducting the Proposed Pilot in tandem with the US, if circumstances arise where the US Pilot is significantly delayed or cancelled, members support undertaking the non-inter-listed Canadian element of this Pilot.

Questions for Market Participants

1. We propose to define a security as medium-liquid if it trades at least 50 times a day on average and more than $50,000 on average per trading day over the past month. Do you believe that this definition is appropriate? If not, please provide an alternative definition and supporting data, if available, to illustrate which securities your definition captures.

This definition of a medium-liquid security appears to be reasonable for the purposes of the study, however, members questioned how the numbers were chosen. In addition, certain members suggested that the definition should possibly consider the exchanges on which the security is listed, as well as the type of security.

2. We propose to introduce the Pilot in two stages, with non-inter-listed securities first, followed by inter-listed securities. Do you believe that such staggered introduction will cause material problems for the statistical analysis and the results of the Pilot? If so, please describe your concerns in detail.

Members expressed concern with the two-stage, staggered introduction of securities into the Proposed Pilot. We understand the reasoning that a market event may skew the entire set of results in a one-stage Pilot, however, some members indicated that should this happen, it would skew the results so that the comparability of the data sets would be compromised. Although the data sets of domestic and inter-listed securities have different characteristics, Canadian-only listed securities are not completely independent of market events that affect inter-listed securities. Running a one-stage Pilot would ensure the variables apply to both data sets equally, leading to more consistent data.

In addition, a one-stage Pilot would facilitate a simpler implementation.

3. Several Canadian marketplaces offer formal programs that reward market makers with enhanced rebates in return for liquidity provision obligations. On the one hand, such programs may benefit liquidity. On the other hand, one of the primary objectives of the Pilot is to understand if rebates cause excessive intermediation. In your opinion, should exchanges be allowed to continue using rebates or similar arrangements for market making programs during the Pilot? Do you believe any constraints on such programs during the Pilot to be appropriate?

Members agreed that the Proposed Pilot should create an environment where the controlled behavior is uniform among test participants. There should not be any exemptions for existing market makers, as the results would not reflect a state where rebates are not used for compensation. Confounding the results by having too many variables will hamper proper evaluation of the cause and effect relationship between the rebates and trading outcomes.

4. We propose to compute price impacts at the one- and five-second horizons. Do you believe that we should consider other horizons? If so, which ones?

Members defer to the expertise of the data scientists and academics in respect of this question.

5. We propose to compute time-to-execution for limit orders posted at the CBBO prices or improving these prices. Do you believe that we should consider different price levels? If so, which ones? Please provide supporting data and analysis, if available, to demonstrate the empirical importance of order postings at other levels.

Members support using the CBBO as a consistent metric to compute time-to-execution.

6. We propose a number of market quality metrics. Do you believe that we should consider additional metrics? If so, please outline these metrics and provide supporting data and analysis, if available, to demonstrate their empirical importance.

Members defer to the expertise of the data scientists and academics in respect of this question.

7. We have had extensive discussions with a number of market participants on whether to include exchange-traded products (ETPs) in the Pilot, and some participants suggest that such an inclusion is warranted. Nevertheless, others point out that trading characteristics of ETPs are substantially different from those of corporate equities and including ETPs will present significant challenges in the matching stage and will likely confound the results in the analysis stage.

As such, in relation to ETP inclusion, we ask that market participants consider the following questions: Given the challenges that ETP matching presents, can the goals of the Pilot be achieved without including ETPs in the sample? If ETP inclusion is important, can you propose a way to construct a matched sample that addresses the concerns identified above?

We agree with the conclusion to exclude the ETPs in that the trading characteristics significantly differ from corporate equities, and as such, will create “noise” in respect of the results of the data. The data that may be obtained from including such products are likely not worth the degradation of the data in respect of the corporate equities.

Despite excluding the ETPs from the Proposed Pilot, we support them being subject to any rule that results from the Proposed Pilot. Any rule resulting from the Proposed Pilot should apply to all securities.

Practical Considerations

In addition to the above issues discussed above, members noted a number of practical considerations that should be addressed in implementing the Proposed Pilot.

In respect of the setting for Smart Order Routers ("SOR"), for this testing to yield accurate results, the participants must be able to have and implement different routing methods with the selected symbols. Some trading platforms are unable to support two SOR settings. If participants are unable to adjust the SOR for the selected symbols, the results may not be accurate, as it will show no change in behavior from the retail/Capital Market activity. The passive posting method may not change if the active flows do not adjust.

The shorter the lead-time to the Pilot, the less ready firms will be. It is likely that some firms will not be ready for the start of the Pilot and will make changes over time. As such the first week/month(s) may not be representative of realistic market behaviour due to lags in technology adjustments.

The additional cost to industry of the Pilot approach rather than simply making a rule change may be needed specifically to be built into the Pilot structure.

Thank you for considering our comments. If you have any questions, please don't hesitate to contact me.

Yours sincerely,

Susan Copland

CITADEL | Securities

March 1, 2019

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission, New Brunswick
Superintendent of Securities, Government of Prince Edward Island
Nova Scotia Securities Commission
Office of the Superintendent of Securities, Service NL (Newfoundland and Labrador)
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Department of Justice, Government of Nunavut

Attention:

The Secretary
Ontario Securities Commission
comments@osc.gov.on.ca

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
Consultation-en-cours@lautorite.qc.ca

Re: Proposed Trading Fee Rebate Pilot Study

Citadel Securities Canada[1] appreciates the opportunity to provide comments to the Canadian Securities Administrators ("CSA") on the proposal to establish a Trading Fee Rebate Pilot (the "Proposed Pilot").[2]

The Proposed Pilot acknowledges that due to the interconnected nature of the Canadian and U.S. securities markets, it is essential to implement significant market structure changes in a coordinated manner to the extent practicable.[3] While we have strong reservations about certain aspects of the U.S. Securities and Exchange Commission's transaction fee pilot for NMS stocks – including significant concerns relating to the practical impacts of a zero-rebate test group – we nevertheless urge continued coordination and alignment as the CSA considers finalizing and

[1] Citadel Securities is a leading global market maker across a broad array of fixed income and equity securities. In partnering with us, our clients, including asset managers, banks, broker-dealers, hedge funds, government agencies and public pension programs, are better positioned to meet their investment goals.

[2] http://www.osc.gov.on.ca/documents/en/Securities-Category2/csa_20181218_23-323_trading-fee-rebate-pilot-study.pdf.

[3] Proposed Pilot at page 1.

implementing the Proposed Pilot. Therefore, in addition to the feedback we provided on the proposed U.S. transaction fee pilot,[4] we provide below several recommendations designed to better harmonize the Canadian and U.S. pilots.

First, the zero-rebate test group included in the final U.S. transaction fee pilot contains an exception for exchange market maker programs. Specifically, exchanges are permitted to adopt new rules that provide "linked pricing" to registered market makers in consideration for meeting rules-based market quality metrics.[5] We recommend the CSA provide a similar exception in the Proposed Pilot. Otherwise, the balance between benefits and obligations would be significantly altered for market makers operating on Canadian exchanges, which could adversely impact the current trading dynamics for interlisted securities included in both pilots.

Second, given the significant trading volumes in interlisted securities, we recommend that these securities be included in the initial implementation phase of the Proposed Pilot, which should coincide with the start of the U.S. transaction fee pilot. Non-interlisted stocks could be covered by the Proposed Pilot either at the same time or during a second phase. We believe that applying the Proposed Pilot to non-interlisted stocks first, or to interlisted stocks prior to the start of the U.S. transaction fee pilot, will increase implementation costs for market participants and raises the very same concerns that led the CSA to decide in 2016 not to move forward with a pilot unless a similar study was undertaken in the U.S.[6]

Finally, we encourage the CSA, in advance of any pilot, to leverage currently available market data in order to study the impact of transaction fees and rebates on order routing, execution quality, and market quality. This research would help to establish a baseline for evaluating the impact of the Proposed Pilot and inform how to design the optimal pilot structure.

*   *   *   *   *   *   *   *   *   *

We appreciate the opportunity to provide comments on the Proposed Pilot. Please feel free to contact the undersigned with any questions regarding these comments.

Respectfully,

/s/ Mark Wilkinson
President, Citadel Securities Canada ULC

/s/ David Archer
Head of CES Canada

---

[4] *See* our letter dated May 25, 2018, available at: https://www.sec.gov/comments/s7-05-18/s70518-3712479-162477.pdf.

[5] Transaction Fee Pilot for NMS Stocks, 84 Fed. Reg. 5202, (Feb. 20, 2019) at 5222, available at: https://www.govinfo.gov/content/pkg/FR-2019-02-20/pdf/2018-27982.pdf.

[6] Proposed Pilot at page 1.

ITG Independent Trading Group

370 King St W
Suite 701
Toronto, ON
M5V 1J9

Thank you for the opportunity to respond to the CSA Trading Fee Rebate Pilot Study.

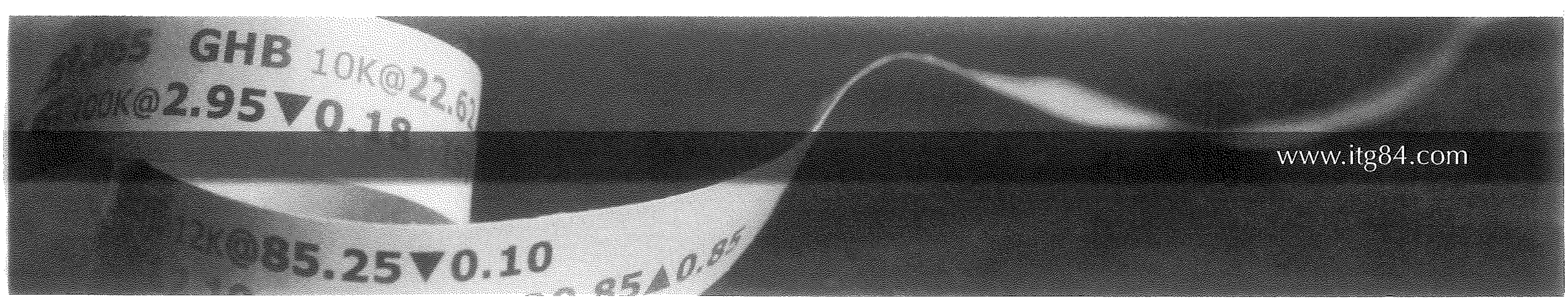
Independent Trading Group (ITG84) is Canada's only Investment Dealer solely focused on Market Making and Proprietary Trading. As such, we feel qualified to add our commentary to this Study. We will comment specifically to Question 3, as we feel other participants are more qualified to comment on other aspects of the Study.

When considering the effect of exchange rebates on market making, the committee must distinguish between liquidity providers of convenience and true Market Makers that have Marketplace Obligations, like TSX Specialists. Theoretically, both provide liquidity to markets, but only designated Market Makers are obligated to do so at all times.

Liquidity providers of convenience have the freedom to enter the market whenever they identify favourable odds. They are compensated implicitly by buying low and selling high, at prices and volumes chosen by them, and if the market action doesn't suit them, they can turn their focus to more favourable securities.

In stark contrast, designated Market Makers must routinely provide liquidity in their assigned stocks at the most unfavourable times. Consider, for example, the TSX MGF facility in which the primary and secondary Market Makers may be required to provide top of book liquidity up to 50 times what is available in the lit market. This is an obligation to accept a very adverse trade, one which is immediately a minimum one tick loser. Worse still, on any but the most liquid names the next best price is typically very far away from the top of book. Though the MGF facility is meant to provide liquidity to retail investors that cannot commit to the effort of working an order, experience shows that MGF fills often come the wrong way at short term tops and bottoms, especially when secondary liquidity is also poor, compounding the adverse selection. No "liquidity provider" of convenience would expose themselves to such trades.

Designated Market Makers are responsible for maintaining orderly markets, generally by quoting a maximum spread on their assigned stocks. Maintaining the spread is a minor risk for the few very liquid Canadian stocks, outside of times of market stress, but the great majority of names are very thinly traded, and the markets are not deep. It is common in such names to have the next level quote to be 1% or more away, on both sides, making the risk of quoting significant. No Market Maker can afford to routinely suffer such losses on a trade, and so are required to hold positions for some time until they find a reasonable exit. By facilitating trades, the Market Maker relieves the other side of the financial burden and risk of the position until the opposite side can be found. These trades are rarely exited profitably, and Market Makers must subsidize those losses by trading in their more liquid assignments. Liquidity providers of convenience have the freedom to focus only on the best trading names, with no obligation to provide liquidity where it is needed. Though these participants may tighten spreads, they will do so only by the minimum required to get ahead of liquidity that is already available in the market.



ITG Independent Trading Group

370 King St W
Suite 701
Toronto, ON
M5V 1J9

Market Makers must also maintain orderly markets during periods of market stress. Unlike liquidity providers of convenience, Designated Market Makers cannot simply "shut off the machines" when markets get volatile. Exchanges automatically assign trades to the responsible Market Makers and we must continue trading to manage that assigned risk, and to help dampen the volatility. To prepare for that risk, Market Makers make significant investments in fault tolerant infrastructure. It's much easier to just shut down, but that is not what markets need us to do.

Finally, a primary function of Market Makers is "price discovery", to facilitate the market's ability to identify the price at which the most trades will clear, the fair price. Finance text books refer to price discovery in the abstract, implying that it is a process that happens organically. Not so. Price discovery happens by people trading at the wrong price. You only know you are paying too much when everyone tries to sell to you, or are offering too cheap when everyone is a buyer. Market Maker obligations force us to provide liquidity at those worst prices, as it is the promise of liquidity that attracts the opening trades, leaving us managing incremental losses until the market settles at the true clearing price. Only when fair value has been established can a Market Maker begin to earn back those initial losses, buying and selling around the price that they helped discover, until a new imbalance requires the clearing price to move again. Liquidity providers of convenience will wait until markets have settled, avoiding the cost of price discovery while capturing the opportunities available when it's found.

For accepting all these risks, providing all these services, a Market Maker is compensated in two ways: the opportunity to participate in trades at attractive prices, and market fee incentives.

Historically the primary source of Market Maker revenue was from the capture of the bid-ask spread, buying below and selling above the mid-point. Once those spreads were measured in 1/8ths, when market making required nothing more than a couple of phones and a seat on the exchange. Now decimalization and fractional penny trading have collapsed the bid-ask spread while required technology costs have exploded. They have at the same time dramatically increased the cost of price discovery as there are so many more levels at which the price can be wrong, and because the true clearing price can move incrementally outside of the spread all the time.

To recover price discovery losses and start earning a profit, Market Makers must execute to capture the bid-ask spread as many times as possible before the clearing price moves again. To do so we must compete with the liquidity providers of convenience that also try to capture the bid-ask spread when the market settles, but typically become significant liquidity takers when the clearing price begins to move.

Some exchanges offer some structural advantages to Designated Market Makers to improve their odds of trading at more favourable prices, such as the Participation facility of the TSX. But these advantages are easily trumped by the advantage derived from Broker Priority. Liquidity providers of convenience,

ITG Independent Trading Group

370 King St W
Suite 701
Toronto, ON
M5V 1J9

especially the trading desks of large brokerages, can use Broker Priority to capture a large fraction of trades and starve out orders booked long before. And with multiple venues to which they can direct order flow, dealers can also segregate and capture the majority of low risk retail flow, leaving Market Makers to interact primarily with high adverse selection institutional flow.

Trying to capture the bid-ask spread in modern Canadian markets is a low probability trade for which profits rarely exceed the cost of price discovery, even with the slight structural advantage offered to Designated Market Makers. On the other hand, it is a great trade for liquidity providers of convenience that can leverage the structural advantage of Broker Priority while minimizing the overhead costs of price discovery.

Exchange rebates are the only guaranteed income that Designated Market Makers have. The trading that generates them is accepted as a loss leader. Without the guaranteed income, Market Makers cannot offer the services they provide to the Canadian market place, especially in the very thinly traded names, the majority, that need Market Makers the most. In contrast, for liquidity providers of convenience exchange rebates are simply found money, paying them for a service that they do not provide.

IIROC, in its wisdom, has determined that exchanges that exceed 2.5% market share should be designated as protected marketplaces for the purposes of OPR, guaranteeing them significant revenue streams for the services of processing messages and matching trades. Designated Market Makers routinely trade 3 – 10% of the daily volume in their assigned securities, with even greater fractions occurring in the least liquid names, committing their capital to ensure that trades can get done. To provide that service, we need some protection too. The lack of meaningful distinction between liquidity providers of convenience and true Market Makers is the equivalent of granting Firefighter status to anyone with a hose.

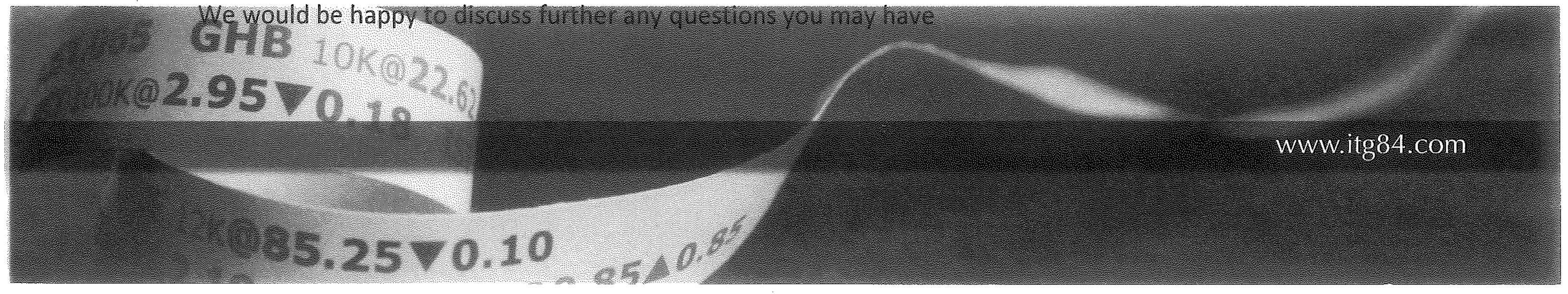
We feel very strongly that marketplaces be given the freedom to incentivise Market Makers to contribute meaningful liquidity to their respective marketplaces. As we have described, not all liquidity provision is equal. It is imperative that fee models reflect this distinction. Currently they don't. And the result is excessive intermediation in areas where it is not needed and at times when it is unnecessary.

It is critical to Canadian Capital Markets that there is a backbone of committed liquidity provision. For all listed Issues.

It is our opinion that any constraints on existing liquidity provision mechanisms during the Pilot Program would be inappropriate and detrimental to Canada's share of trading volumes.

If Marketplaces are constrained in their ability to provide meaningful, measurable, results-based incentives for liquidity provision, it becomes an issue of the strength and relevance of our Capital Markets, not just trading venues fighting over market share.

We would be happy to discuss further any questions you may have



Deanna Dobrowsky
Vice President, Regulatory
Office of the General Counsel
300-100 Adelaide Street West
Toronto, Ontario M5H 1S3
T (416) 365-8130
F (416) 947-4461
deanna.dobrowsky@tmx.com

March 1, 2019

VIA EMAIL

Susan Greenglass
Director, Market Regulation
Ontario Securities Commission
20 Queen Street West, 22nd Floor
Toronto, Ontario M5H 3S8
sgreenglass@osc.gov.on.ca

Dear Susan:

RE: Processes Related to CSA Staff Notice and Request for Comment 23-323 ("2018 RFC")

On behalf of TMX Group Limited (**"TMX Group"**), I would like to thank you for accepting and acting on the concerns we shared with you in our letter dated January 9, 2019 regarding the length of the initial comment period (**"January Letter"**). Today TMX Group has also filed our submission dated March 1, 2019 providing responses to the questions posed in the 2018 RFC concerning the proposed Trading Fee Rebate Pilot Study (**"Proposed Pilot"**) published on December 18, 2018.

In this letter we address two main issues. First, we are concerned that the CSA has not meaningfully addressed any of the issues and comments submitted by marketplace participants in response to the CSA's initial notice that explored the possibility of proceeding with a rebate pilot. Second, we are concerned that the implementation of the Proposed Pilot has circumvented the established process for imposing new obligations and rules on marketplaces.

Lack of Meaningful Consultation

In May of 2014, the CSA published for comment proposed amendments to National Instrument 23-101 Trading Rules (**"NI 23-101"**) in relation to the order protection rule (**"OPR"**) and also included as part of that notice a discussion of possible actions that the CSA could take in respect of rebates (**"2014 RFC"**). In it, the CSA proposed conducting a pilot study on rebates and posed 6 direct questions to the industry on the viability and relevance of conducting a rebate fee pilot, including soliciting feedback on whether action with respect to rebates is even necessary. Of the 27 comment letters received in response to the 2014 RFC, 20 provided direct and detailed responses to the 6 questions related to rebates.

In 2016, the CSA published its Notice of Approval of Amendments to NI 23-101 and Companion Policy 23-101CP (the **"2016 Notice"**). This is the only CSA notice that references the comments received in response to the 2014 RFC. The 2016 Notice summarizes the responses to the trading fee questions from all 20 letters received in just 7 general sentences. It does not meaningfully respond to the issues and concerns raised in these 20 letters. Rather, the Notice simply reads:

> *As noted, we are not proceeding with any action on rebates at this time. Although we are still supportive of a pilot study, we do not believe that meaningful results can be obtained from a study that does not include Inter-Listed Securities. We will continue to liaise with our regulatory counterparts in the U.S and will consider a joint pilot study in the future if an opportunity arises.*

Notwithstanding the fact that the CSA and the Ontario Securities Commission (the **"Commission"**) have been considering, as acknowledged in the 2018 RFC, a pilot study on rebates for many years, neither has, as of yet, meaningfully responded to, nor even acknowledged the feedback received from the industry on what action should be taken on the payment of rebates. Despite this deviation from the accepted, expected, and in fact, mandated, rule making process that calls on the Commission to conduct meaningful and clear public consultations on proposed rules, the Commission and the CSA, in this case, appear to have unilaterally decided to proceed with the Proposed Pilot. The 2018 RFC presents the Proposed Pilot as a foregone conclusion and shifts the discussion from whether a study should proceed, to the design and implementation of a study that has never been subject to a complete public consultation process. We would also note that during the most recent public panel on the Proposed Pilot[1], panelists were explicitly instructed that discussion was to be limited to the design of the Proposed Pilot, and that questions and comments pertaining to the merits of proceeding with the study were out of scope.

The Proposed Pilot is a de facto Rule

In addition to our concerns with the lack of a proper consultation process, we would like to reiterate our concerns with the manner in which the Commission is proceeding with the Proposed Pilot that we briefly remarked on in our January Letter.

We understand that the Commission intends to implement the Proposed Pilot by issuing numerous orders under certain public interest provisions of the *Securities Act* (Ontario) (the **"*Act*"**), specifically under section 21(5)/s.21.0.1 (**"s.21 Orders"**). These s. 21 Orders would mandate industry-wide participation for all marketplaces and marketplace participants with no 'opt-out' provisions. A failure to comply with these orders could result in enforcement action and substantive penalties. These orders would prohibit marketplaces from paying rebates on a mandatory set of securities selected by the Commission. It is indisputable that such a prohibition could, in some manner, impact the issuers of the securities selected for a rebate ban, yet these issuers will, despite not being subject to the issued s. 21 Orders, not be able to 'opt-out' of their securities being selected for the no rebate bucket of the Proposed Pilot.

Taking a step back, we would note that following the Ainsley decision[2], a subsequent task force report, public consultation and the resultant *Securities Amendment Act, 1995*, the Commission is authorized to make rules and to adopt policies under s. 143.8 of the *Act.* The difference between rules and policies, according to the Commission's document "Rule-making in Ontario" is that rules are of a "binding nature" and a "person or a company that contravenes a rule may be subject to

[1] Capital Markets Institute Panel: Canadian Securities Administrators Trading Fee Rebate Pilot Study hosted by Rotman School of Management on September 12, 2018 (https://visitor.eliteemail.net/CapitalMarketsInstitute/viewonweb?cid=574f22c7-821f-4415-b569-627c412a70ff&sid=104798f7-354d-4110-998b-ad0670ddad8e)

[2] *Ainsley Financial Corp. v. Ontario (Securities Commission)* (1994), 121 D.L.R. (4th) 79 (Ont. C.A.) at 83

enforcement action". In this case, a marketplace that contravenes the s.21 Order may face enforcement action. Unlike rules, policies "may not be prohibitive or mandatory in character". Therefore, while rules mandate, policies inform. Policies can, for example, "inform market participants of (a) how the Commission may exercise its discretionary authority, (b) how the Commission interprets Ontario securities law, and (c) the practices followed by the Commission in performing its duties under the Act."[3] By contrast, rules would have the effect of mandating these same actions. Clearly, the mandatory, prohibitive nature of the Proposed Pilot does not lend itself to classification as a policy.

We continue to believe that by issuing s.21 Orders to all regulated marketplaces and alternative trading systems, the Commission will in fact be imposing a market wide structural change that would have the effect of substantively altering National Instruments 21-101 and 23-101. As these s. 21 Orders will be binding and prohibitive in nature and will contain no "opt-out" provisions, we submit that the orders are a de facto rule change.

In addition, under s. 143.11 of the *Act,* the Commission is prohibited from making "any orders or rulings of a general application". Rather, matters of general application must proceed through the mandated rule-making legislative process. The Commission should not be able to issue multiple identical orders to all members of a particular group of marketplace participants in order to avoid the prohibition on blanket orders and circumvent the formal rule-making process that would be otherwise required for imposing an industry-wide ban with the potential of enforcement action and penalties for non-compliance. We do however recognize the value of the flexibility of using s. 21 Orders to enact the substance of the Proposed Pilot after appropriate rule-related processes have been followed. Therefore, we submit that the Commission may, and in fact, should, choose to incorporate the use of s. 21 Orders following the completion of the rule-making process as their use would allow the Commission to quickly amend or rescind the Proposed Pilot.

Notice and Comment Process for New Rules

The *Act* sets out the details of the requisite notice and comment process for any new rules proposed by the Commission in s.143.2(1). Given the breadth and significance of the changes required to implement the Proposed Pilot, we believe that it is of the magnitude of a new rule and should be treated as such. Therefore, in addition to other requirements, the Commission should publish a notice that sets out, among other things, an analysis of the anticipated costs and benefits of the proposed rule (**"CBA"**)[4] and invites the public to make representations[5]. The Commission must also publish any changes to the initial proposed rule[6] and invite additional representations on those changes[7]. To our earlier point about the lack of meaningful industry consultation, under the *Act* the Commission may only make a rule "after considering all representations made as a result"[8] of the mandated notice and comment process and must publish a "statement of the Commission setting out its response to the significant issues and concerns brought to the attention of the Commission during the comment periods". As already noted, no meaningful response has ever been made to public comments on the Proposed Pilot.

The CSA has already set the precedent for requiring that changes to marketplaces fees imposed by regulators be subject to the rigorous s. 143 process for introducing new rules. On April 7, 2016, the CSA published for comment Proposed Amendments to NI 23-101 for a 90 day comment

[3] https://www.osc.gov.on.ca/documents/en/Securities-Category0/backgrounder_rule_making.pdf
[4] Securities Act, RSO 1990, c S.5, s.143.2(2)7
[5] *Ibid*, s.143.2 (4)
[6] *Ibid*, s.143.2 (7)
[7] *Ibid*, s.143.2 (9)
[8] *Ibid*, s.143.2 (10)

period seeking to lower the active trading fee cap by approximately 40% for exchange-traded funds and non-interlisted equities. That notice included the required CBA. The CSA received 6 comment letters in response and published its final amendments in a notice on January 26, 2017 and included detailed summaries of, responses to, and changes made because of, the comments received about the proposed reduction. That notice was then submitted for approval to the Minister of Finance as required under s. 143.3 of the *Act*. A Notice of Ministerial Approval was published on March 30, 2017. Considering that the fee cap represented a 40% reduction to fees while the Proposed Pilot introduces a 100% reduction to rebates, there is no reason why the amendments required to implement the Proposed Pilot should not be subject to the same rigorous review and approval process as the relatively minor changes, by comparison, that were imposed on marketplaces in 2017.

In addition to failing to follow the established public notice and comment process over the course of the evolution of the Proposed Pilot, we would also note that the Commission has failed to provide a detailed CBA. Neither the 2014 RFC nor the 2018 RFC included any CBA undertaken by the Commission in advance of deciding to proceed with the Proposed Pilot. As a CBA was not included in the notices published by the Commission, industry participants were not able to properly assess the impact that the study would have on the market. Consequently, the Commission has not had the benefit of public comments on the possible costs and benefits of selecting a Proposed Pilot as the preferred course of action on marketplace rebates. Further, a detailed CBA becomes even more significant in light of the temporary nature of the Proposed Pilot which will impose industry wide changes that marketplaces will be expected to not only implement but also reverse/decommission within a relatively short period of time. As the requisite amendments are not permanent, it is vitally important for the industry to understand the complete costs associated with implementing transient changes which is particularly challenging without some semblance of a CBA.

In light of all of the above, we urge the Commission to review its 2018 RFC taking into consideration the requirements of s. 143 of the *Act* that should otherwise be applied, and publish a revised notice that includes, among other things, a meaningful discussion of the issues and concerns that industry participants had initially expressed with proceeding with a Proposed Pilot, including a detailed cost benefit analysis of the Proposed Pilot.

Respectfully submitted,

Deanna Dobrowsky

cc: Maureen Jensen, Chair and CEO, OSC
Grant Vingoe, Vice-Chair, OSC
Tim Moseley, Vice-Chair, OSC
Jim Sinclair, General Counsel, OSC
Lawrence Haber, Lead Director, OSC
Mark Wang, Director, Capital Markets Regulation, BCSC
Lynn Tsutsumi, Director, Market Regulation, ASC
Elaine Lanouette, Directrice principale de l'encadrement des structures de marché, AMF
Tracey Stern, Manager, Market Regulation, OSC

Mackie Research Capital Corporation

March 1, 2019

Attention CSA
British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission, New Brunswick
Superintendent of Securities Government of Prince Edward Island
Nova Scotia Securities Commission
Office of the Superintendent of Securities, Service NL (Newfoundland and Labrador)
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Department of Justice, Government of Nunavut

Regarding Request for Comment 23-323 - Trading Fee Rebate Pilot Study:

The CSA's role is vital to marketplace integrity and we hope it is fully aware of the far reaching positive impacts that organic market makers (Registered Traders) provide to help ensure an orderly and liquid market for listed securities on the Toronto Stock Exchange (TSX). We also trust the CSA is well aware of the assumption of risk and extensive direct costs shouldered by individual registered traders and sponsoring firms who perform those market making responsibilities, which benefit issuers and investors alike. We believe that removing or negatively adjusting the rebate fee structures as they pertain to registered traders (RT's) and their stocks of responsibility without equal or enhanced alternative options in place would be detrimental to investors and the overall integrity of the TSX listed market in the immediate, near, and long term.

We support the pilot study and look forward to the resulting insights. We strongly believe it is imperative to the overall health of the TMX, and Canadian capital markets that officially sanctioned market making participants are encouraged to remain participants with the aid of specific and sustaining rebate fees, cost offsets, and/or other compensation formulas directly from the Toronto Stock Exchange. Also, it is strongly recommended that the pilot allow the TSX and other Canadian exchanges to maintain a risk and cost offset formula specifically for registered market making during the pilot trial period so that market makers may maintain a manageable risk exposure and be incentified to ensure their continued presence.

199 Bay Street, Commerce Court West, Suite 4500, Box 368, Toronto, ON M5L 1G2 T. (416) 860-7600 F. (416) 860-7671

The field of registered trading participant firms is shrinking rapidly to the detriment of a healthy and transparent marketplace. Registered traders (RT's) for listed securities provide a variety of valuable direct and indirect benefits to issuers, investors, and the broader integrity of Canadian marketplaces. Direct and indirect benefits include:

- Registered market makers adhere to predetermined market quality obligations in agreement with the Toronto Stock Exchange.
- Market Makers consistently represent and maintain narrow and competitive Bid/Ask spreads to facilitate price points attractive to retail and institutional investors. Bringing buyers and sellers together with visible and narrow price spreads is beneficial to all issuers and particularly important for medium and low liquidity issues.
- Market liquidity and price stability through market depth participation.
- Order execution benefits for retail investors through minimum guaranteed fill obligations and odd lot executions.
- Posted markets supported by registered market makers are key to investor and issuer protection as transparent marketplaces. There is direct and indirect linkage to long term market quality and investor protection in the face of ever increasing usage of dark marketplaces and order execution internalization.
- Price discovery in the secondary market is important to issuers.
- Supportive and necessary gatekeeper function for regulatory bodies including IIROC.

The elimination of trade rebates for registered market making would be detrimental to market efficiency, investor objectives and confidence, issuers, and pricing in both our equities markets and of derivatives and funds. Naturally, some aspects of the rebate fee format may need adjusting and some alternative options are available, however, without tangible and guaranteed offsets for the risks and rising costs borne by independent market making firms, they may choose to abandon this area of contribution to the marketplace.

We appreciate this opportunity to comment on the Trading Fee Rebate pilot study and offer our assistance with further explanation and thoughts at your convenience.

Very Truly Yours,

David Hetherington (F.C.S.I)
Executive Vice-President
& Director Professional Trading
Mackie Research Capital Corporation
199 Bay Street, Suite 4500
Commerce Court West, Box 368
Toronto, Ontario M5L 1G2
Tel: 416 860 7625
Fax: 416 860 7761

CIBC World Markets Inc.

Brookfield Place
161 Bay Street, 5th Floor
Toronto ON M5J 2S8

Tel: 416 594-8149

March 1, 2019

The Secretary
Ontario Securities Commission
20 Queen Street West, 22nd floor
Toronto, Ontario M5H 3S8
comments@osc.gov.on.ca

and

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal, QC, H4Z 1G3
consultation-en-cours@lautorite.qc.ca

RE: CSA Staff Notice and Request for Comment 23-323
Trading Fee Rebate Pilot Study

CIBC Capital Markets (CIBCCM) thanks you for this opportunity to comment on the proposed Trading Fee Rebate Pilot Study ("Proposed Pilot") that would apply temporary pricing restrictions on marketplace transaction fees applicable to trading in certain securities.

CIBCCM is the investment banking platform of Canadian Imperial Bank of Commerce (CIBC). We are a registered Canadian broker-dealer, engaged in, among other things, providing equities trading and execution services to retail and institutional investors. Our comments reflect the views of an institutional broker dealer and a retail broker dealer who will be impacted by the Proposed Pilot.

CIBCCM believes that the Canadian equity markets are fundamentally strong and that investors have benefited from advances in technology and a competitive marketplace where multiple trading venues have led to improved cost, liquidity, speed and product innovation. The need to globally compete for capital over the years has provided appropriate incentives to deliver a high quality capital market driven by the price discovery process, which concentrates liquidity to the benefit of investors. Furthermore, we support the regulators continued efforts to evaluate market structure developments to help promote market integrity, which in turn can bolster investor confidence.

As a full service broker dealer, our views on the Proposed Pilot are conflicted. On the one hand, we firmly support increased transparency and increased efficiency in equity markets.

We are supportive of studying trading fees and their impact on market quality, execution quality and order routing behaviour. We also strongly support the notion of data driven conclusions prior to implementing policy change and commend the Regulators and their academic partners for the time and effort put in to developing the framework for the Proposed Pilot.

The noble purpose of the proposed pilot is to better understand how the prohibition of rebates may affect dealers routing practices, the level of intermediation and standard measures of market quality. The challenge is that the Proposed Pilot will have real impacts, unknown impacts, with investors' real dollars. In our view, measures for success are ambiguous and ought to be more clearly defined prior to introducing change to existing marketplace pricing structures.

In addition, the current market structure serves our retail customers well, providing them with lower spreads and reduced execution costs. We believe that the competition amongst trade venues fostered by current market structure has had a positive impact on the execution of our retail customer orders.

However, we appreciate the challenges our institutional community faces with perceived conflicts related to broker order routing. Broker routing conflicts are a valid concern, though, we question whether the Proposed Pilot is the best solution to these concerns. Are there other approaches we can take without risking impacts to market integrity?

Our position:

1. Clearly define the problem we are trying to solve, and create equally clearly defined measures for success, which can then be measured at the Pilot's conclusion. There ought to be statistically significant results that demonstrate behavioural change of routing brokers and clearly articulated improvements in execution quality achieved, and to the extent possible, isolated to differences in fee or rebate levels. For example, if the results of the Pilot simply shows that routing practices have changed, that does not confirm that it was to the benefit or detriment of execution quality. Those benefits or harms are what needs to be measured (pre and post Pilot), rather than a simple review of market share shifts.

2. Make institutional order routing disclosure a policy priority. Regulators should address broker conflicts through a focus on disclosure and transparency around broker executions and execution quality statistics. With existing best execution obligations, we assert that broker conflicts of interest in order routing are best addressed through transparent performance reporting. A requirement for standardized information about the manner in which brokers handle orders will allow institutional clients to evaluate broker routing decisions, potential conflicts of interest and the quality of trade executions. In turn, improved reporting will allow for better management of broker relationships. In our opinion, this should be a precursor to the Proposed Pilot.

3. Regulators have been taking the right approach and should continue to test reductions in the existing fee cap. Through a gradual reduction of the current fee cap across all stocks, we can achieve a deliberate way of collecting data and uniformly assessing the impact of each reduction on all stocks. This approach eliminates the potential for issuer concerns (corporates and ETPs), being subject to disparate treatment due to the

arbitrary nature of test group selection. Reductions in the fee cap can be supported today.

4. Retail investors enjoy low cost executions, fast executions, significant liquidity and narrow spreads. From the retail perspective, our primary concern with the pilot is the potential for a degradation in the quality of trade execution for our clients.

   With the removal of incentives for liquidity provision, there is a likelihood of wider spreads and higher transaction costs for (retail) investors. In other words, exchange fees will move from an explicit trading cost to an implicit cost, measured by a widening of spreads. As retail generally takes liquidity rather than providing, should spreads widen, retail will pay the spread more often than they earn it. This equals a higher investor cost. At a minimum, there will be a direct increase in transaction costs for liquidity consumers.

5. The conflict inherent in broker routing will not be eliminated by a rebate ban. So long as venues can offer different fees or can offer other economic incentives to route order flow to them, there will be concerns about order routing conflicts. Furthermore, marketplace ownership may be a greater contributor to conflicted order routing practices and a rebate ban does nothing to address this conflict.

6. We believe that rebates can be a legitimate incentive to promote liquidity provision and contribute to price discovery in public markets. The elimination of rebates without introducing a better alternative to incentivize liquidity provision could lead to wider spreads, less liquidity and increased costs for both retail and institutional investors. Specifically, incentives may exert a beneficial influence which outweighs any negative impact on less liquid securities. Rebates may improve market quality in these securities and attract liquidity by incentivizing publicly displayed quotes.

   Rebates have the ability to disproportionally impact lower priced stocks as the access fee makes up a higher percentage of the share price of a lower priced stock. Consider that one size may not fit all - changes to access fee caps should potentially contemplate the share price of a stock, among other things.

7. The imposition of new regulatory constraints should be a last resort. Ideally competition and market forces would produce a solution that obviates the need for the Proposed Pilot. However, should the Proposed Pilot proceed, and in the event of no change upon conclusion of the Proposed Pilot, it should be determined that the price of liquidity is the price of liquidity. If there is no systemic damage, then do not put in artificial regulatory constraints which may simply add friction.

<u>Responses to Appendix II: Questions for Market Participants</u>

Despite our position stated above, we provide answers to the specific questions posed.

1. *We propose to define a security as medium-liquid if it trades at least 50 times a day on average and more than $50,000 on average per trading day over the past month. Do you believe that this definition is appropriate? If not, please provide an alternative definition and supporting data, if available, to illustrate which securities your definition captures.*

We support the inclusion of, and definition of medium liquid securities. Our view is that should we proceed with the Proposed Pilot, the sample should cover a broad spectrum of liquidity conditions otherwise it runs the risk of false conclusions that are not representative of the entire market. A comprehensive pilot has the potential to produce a more meaningful dataset to facilitate a broadened analysis of the impact.

2. *We propose to introduce the Pilot in two stages, with non-interlisted securities first, followed by interlisted securities. Do you believe that such staggered introduction will cause material problems for the statistical analysis and the results of the Pilot? If so, please describe your concerns in detail.*

Recognizing the need to ensure that the interlisted security set coincides with the SEC implementation of the US Proposed Pilot so as not to create an opportunity for regulatory/pricing arbitrage, we are supportive of a staggered start date between Canadian listed and interlisted securities.

3. *Several Canadian marketplaces offer formal programs that reward market makers with enhanced rebates in return for liquidity provision obligations. On the one hand, such programs may benefit liquidity. One the other hand, one of the primary objectives of the Pilot is to understand if rebates cause excessive intermediation. In your opinion, should exchanges be allowed to continue using rebates or similar arrangements for market making programs during the Pilot? Do you believe any constraints on such programs during the Pilot to be appropriate?*

We believe that market making incentive programs should be constrained for the duration of the Proposed Pilot, for those securities participating in the pilot. If we are testing the impact of the removal of rebates on our markets, then market maker programs have the potential to create a regulatory arbitrage to the structure of the Proposed Pilot.

4. *We propose to compute price impacts at the one- and five-second horizons. Do you believe that we should consider other horizons? If so, which ones?*

We support the time horizons proposed.

5. *We propose to compute time-to-execution for limit orders posted at the CBBO prices or improving these prices. Do you believe that we should consider different price levels? If so, which ones? Please provide supporting data and analysis, if available, to demonstrate the empirical importance of order postings at other levels.*

We support using the CBBO to compute time-to-execution.

6. *We propose a number of market quality metrics. Do you believe that we should consider additional metrics? If so, please outline these metrics and provide supporting data and analysis, if available, to demonstrate their empirical importance.*

The analysis of order routing decisions requires information at the parent (order) level. Only at the parent level can it be known that an order was placed by algorithmic decision or through direct client instructions, as well as whether orders are placed individually or as a sequence of orders. The Proposed Pilot would be strengthened should it include parent order level impact costs.

We also believe that for proper analysis, there should be a distinction between agency and principal orders. A high volume of rebates are provided to market participants that have no agency conflict. This order flow should be excluded from any measures of improvements/degradations to broker order routing conflicts.

7. *We have had extensive discussions with a number of market participants on whether to include exchange-traded products (ETPs) in the Pilot, and some participants suggest that such an inclusion is warranted. Nevertheless, others point out that trading characteristics of ETPs are substantially different from those of corporate equities and including ETPs will present significant challenges in the matching stage and will likely confound the results in the analysis stage.*

   These participants and our own research identify the following concerns:

   • most liquidity in ETPs is determined and provided by contracted market makers, and the ETP creation/redemption process represents its own source of liquidity; 23
   • matching characteristics that we propose to use for corporate equities do not have the same meaning for ETPs. For instance, ETP fund size is not a relevant metric, and ETP trading volume is usually not correlated with quoting activity or liquidity;
   • spillover effects of two types may confound the results. First, liquidity in ETPs relates to liquidity of the underlying basket of securities, and if the basket is significantly affected by the Pilot, the ETP will be affected too. Second, ETPs that follow the same baskets may be viewed not only as good matches, but also as substitutes for investment, hedging, and trading purposes. If one of them is selected to be treated, and the other is not, market participants may move between products, potentially confounding the results of the Pilot.

   The above-mentioned concerns make finding matched ETP pairs a uniquely challenging task. To the best of our knowledge, there is no established procedure for matching ETPs to study their trading costs.

   As such, in relation to ETP inclusion, we ask that market participants consider the following questions: Given the challenges that ETP matching presents, can the goals of the Pilot be achieved without including ETPs in the sample? If ETP inclusion is important, can you propose a way to construct a matched sample that addresses the concerns identified above?

We believe that the addition of exchange-traded products (ETPs) to the Proposed Pilot would produce a more inclusive analysis of rebates and fees across all product segments. Although we agree that the trading characteristics of ETPs differ significantly from corporate securities, the data that may be obtained from including these products should be included when considering market structure changes to existing pricing models. This aligns with the US proposal on transaction fees.

Concluding thoughts

Regulators are challenged to ensure that as markets evolve, as technology changes that regulations continue to drive efficiency, integrity and resilience. Their focus is to protect investors, maintain fair, orderly and efficient markets and facilitate capital formation. A healthy market will have investors with different trading horizons and liquidity needs – this is a good thing.

Marketplace pricing is transparent and accessible by all, and has been a stable force in our current market structure. We highlight the concern that there is a potential for more regulation to exacerbate inefficiencies in today's markets, or unintentionally introduces new ones.

We strongly support increased transparency for assessing order routing practices by broker-dealers. The disclosure of order handling information should be the first step to better evaluate broker order-routing decisions and to manage perceived conflicts. Conflicts of interest existed before the onset of maker-taker pricing and are likely to continue to exist during and after the Proposed Pilot.

We commend the regulators for putting together a thoughtful Pilot study, and appreciate the opportunity to provide our comments on the Proposed Pilot. Please feel free to contact us with any questions or requests for clarification.

Respectfully,

Heather Killian
CIBC World Markets Inc.
Heather.killian@cibc.com

HEALTHY MARKETS
TRANSPARENCY & TRUST

March 1, 2019

Via Electronic Mail

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission of New Brunswick
Superintendent of Securities, Department of Justice and Public Safety, Prince Edward Island
Nova Scotia Securities Commission
Office of the Superintendent of Securities, Service (Newfoundland and Labrador)
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Department of Justice, Government of Nunavut

The Secretary
Ontario Securities Commission
20 Queen Street West
22nd Floor, Box 55
Toronto, Ontario M5H 3S8
Email: comments@osc.gov.on.ca

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, Square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal (Québec) H4Z 1G3
Email:
consultation-en-cours@lautorite.qc.ca

Re: CSA Staff Notice and Request for Comment 23-323, Trading Fee Rebate Pilot Study

Dear Sirs/Mesdames:

The Healthy Markets Association[1] appreciates the opportunity to offer our comments on the CSA Staff Notice and Request for Comment 23-323 – Trading Fee Rebate Pilot

[1] The Healthy Markets Association is an investor-focused not-for-profit coalition working to educate market participants and promote data-driven reforms to market structure challenges. Our members, who range from a few billion to hundreds of billions of dollars in assets under management, have come together behind one basic principle: Informed investors and policymakers are essential for healthy capital markets. To learn more about Healthy Markets and our members, please see our website at http://www.healthymarkets.org.

Study.[2] We commend the Canadian Securities Administrators (CSA) for proposing a robust and well-designed pilot, and commend you for seeking to harmonize and coordinate the Canadian Pilot Study with the U.S. Transaction Fee Pilot.[3]

The issues the proposed pilot seeks to address are similar to those in the United States. The CSA proposal is intended to explore the extent to which two type of significant order routing incentives – exchanges' transaction fees and rebates – may be impacting brokers' order routing decisions[4]. Broker' best execution obligations should require them to route orders based on their customers' best interests, not their own. In other words, a broker's routing decisions should not be unduly influenced by a particular venue's fee or rebate structure.

We commented extensively[5] on the design and implementation of the U.S. Transaction Fee Pilot including advocating for U.S. regulators to coordinate inter-listed securities with their Canadian counterparts.[6] Canadian regulators are proposing a matched pairs design to facilitate comparison between the treatment and control groups. We are supportive of such an approach. Market capitalization, share price, trading volume and intra-day volatility are all meaningful drivers of transaction cost. Pairing securities based on these drivers should facilitate a like-for-like analysis.

While we will not offer comments on all aspects and questions posed by the CSA request for comment, we will offer some specific responses here.

Question 2: We propose to introduce the Pilot in two stages, with non-interlisted securities first, followed by interlisted securities. Do you believe that such staggered introduction will cause material problems for the statistical analysis and the results of the Pilot? If so, please describe your concerns in detail.

We do not believe that the proposed phasing will create material problems. The CSA study should coordinate the inter-listed securities to mirror the timing of the U.S. Market

[2] Trading Fee Rebate Pilot Study, CSA Staff Notice and Request for Comment 23-323, Dec. 18, 2018 *available at* http://www.osc.gov.on.ca/en/SecuritiesLaw_csa_20181218_23-323_trading-fee-rebate-pilot-study.htm.

[3] Transaction Fee Pilot for NMS Stocks, SEC, 84 Fed. Reg. 5202, (Feb. 20, 2019), *available at* https://www.govinfo.gov/content/pkg/FR-2019-02-20/pdf/2018-27982.pdf (Final Rule).

[4] While transaction fees and rebates are common in the United States and Canada, they are not the only potential incentives that could create conflicts of interest for brokers in order routing. Notably, under the MiFID II regime in Europe, the regulatory focus has been on eliminating "inducements" that could create the "principal-agent problem." That is more than just fees and rebates. Thus, while this Proposal addresses significant contributors to the current conflicts of interest, it will not eliminate or address all potential sources of conflicts.

[5] See, e.g., Letter from Tyler Gellasch, Healthy Markets Association, to Brent J. Fields, SEC, May 24, 2018 *available at* https://www.sec.gov/comments/s7-05-18/s70518-3704495-162465.pdf (May 24, 2018 Letter); see also, Letter from Tyler Gellasch, Healthy Markets Association, to Brent J. Fields, SEC, July 6, 2018, *available at* https://www.sec.gov/comments/s7-05-18/s70518-4007255-167280.pdf (July 6, 2018 Letter).

[6] May 24, 2018 Letter, at 34.

Transaction Fee Pilot. We also believe that coordination of inter-listed securities would pose the least amount of unintended consequences for either market leading to more robust results of the CSA study. We therefore recommend that regardless if the CSA chooses a staggered pilot or a pilot that will commence both inter-listed and non inter-listed securities that the program should mirror the implementation for inter-listed securities to that of the U.S. Pilot.

Question 3: Several Canadian marketplaces offer formal programs that reward market makers with enhanced rebates in return for liquidity provision obligations. On the one hand, such programs may benefit liquidity. One the other hand, one of the primary objectives of the Pilot is to understand if rebates cause excessive intermediation. In your opinion, should exchanges be allowed to continue using rebates or similar arrangements for market making programs during the Pilot? Do you believe any constraints on such programs during the Pilot to be appropriate?

Incentives paid to market makers expand complexities and offer opportunities for evasion and abuse. As we explained to the SEC in our May 24, 2018 Letter,

> The Proposal's market maker exception appears to create unnecessary complexities, may undermine the utility of the pilot, and may discriminate against competing brokers.[7]

However, in rejecting our concerns, the SEC's Final Rule adopting the fee pilot explained:

> The Commission continues to believe that permitting exchanges to adopt rules to offer Linked Pricing to their registered market makers for securities in the no-rebate Test Group preserves the ability of an exchange to attract market makers through non-rebate incentives and thereby helps maintain the baseline framework in which exchanges can provide incentives to their registered market makers. Commenters highlighted the importance of ensuring that any new rules that exchanges propose to provide Linked Pricing to registered market makers in the no-rebate Test Group be designed so as to not inhibit the Pilot's ability to generate useful data on the impact of rebates on order routing behavior, execution quality, and market quality. The Commission agrees that if they are not narrowly tailored, these non-rebate incentive programs could continue to potentially distort transaction fee pricing, particularly if the exchange's fees are set at a subsidy level above the natural equilibrium within the current regulatory structure to

[7] May 24, 2018 Letter, at 31-34.

> subsidize these market maker incentives. Rather, the market maker exception to Linked Pricing is intended to permit an exchange to impose rules for its registered market makers in ways that would improve its market in a meaningful way, such that it could use the enhanced liquidity provided by its registered market makers to improve its displayed quotation and thereby attract buyers and sellers to the exchange. The non-rebate incentives would only apply to trading activity by a registered market maker in its capacity as a market maker (i.e., acting as principal), and would not apply to any customer activity or activity from other trading desks or business units affiliated with the market maker (and possibly using the same MPID), be it agency, principal or riskless principal trading, traded by or through such market maker. Accordingly, only a registered market maker's principal trading activity in its capacity as a registered market maker in the no-rebate Test Group would be able to satisfy any market quality metrics, and the only trades that would be eligible to receive the non-rebate incentive pricing would be a registered market maker's principal trades in its capacity as a registered market maker in the no-rebate Test Group securities.[8]

Question 6: We propose a number of market quality metrics. Do you believe that we should consider additional metrics? If so, please outline these metrics and provide supporting data and analysis, if available, to demonstrate their empirical importance.

Institutional investors often bear significant costs for orders that are never executed or unnecessarily delayed in their execution. The placement of marketable, limit orders at the NBBO is a key component of many schedule-based trading strategies (e.g., TWAP, VWAP, POV) that are frequently used by institutional investors. We would encourage regulators to measure the delay cost of unfilled, canceled orders as an additional measure of execution quality.

Question 7: Given the challenges that ETP matching presents, can the goals of the Pilot be achieved without including ETPs in the sample? If ETP inclusion is important, can you propose a way to construct a matched sample that addresses the concerns identified above?

[8] Final Rule, at 5222.

ETPs should be included in the pilot, and they are in the US transaction fee pilot.We suggested that the SEC rotate ETPs through the various buckets.[9] However, the SEC ultimately decided to take an alternative approach.

In the SEC's final rule adopting the pilot, it declared

> The Commission does not believe it will be able to draw meaningful conclusions about the impact of changes to transaction fees and rebates on ETPs by observing the effects of the Pilot on other securities, in part because ETPs have a unique create-and-redeem process that does not apply to other NMS stocks.
>
> ...
>
> The Commission recognizes the concern that securities placed in one treatment group could be impacted differently than similar securities placed in a different treatment group. While that effect could occur for any security (e.g., stocks of different operating companies in the same industry), it could potentially be more prominent for ETPs that may be substantially similar. Nevertheless, the Commission notes that similar ETPs are not necessarily identical and many other factors influence investor demand and trading, including expense ratios, trading commissions, and existing holdings.[10]

Lastly, the SEC declared that rotating ETPs was too complicated and that grouping them

> introduces its own complexity in that categorizing ETPs according to their underlying holdings (and potentially other characteristics) involves the exercise of subjective judgment. In addition, grouping similar ETPs can negatively impact the representativeness of the different treatment groups, particularly if all of the similar ETPs are similar in volume, price, and market capitalization.[11]

Additionally, we note that any ETPs included in the CSA pilot should consider the make-up of securities contained within the ETP. Many ETPs could include underlying

[9] July 6, 2018 Letter, at 7.
[10] Final Rule, at 5210-11.
[11] Id., at 5211.

inter-listed securities and consideration to those ETPs should also mirror the inclusion of the broader inter-listed approach proposed by the CSA.

We thank you for your thoughtful and comprehensive proposal to foster market integrity for the benefit of investors.

Sincerely,

Tyler Gellasch
Executive Director

Via Email

March 1, 2019

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission of New Brunswick
Superintendent of Securities, Government of Prince Edward Island
Nova Scotia Securities Commission
Office of the Superintendent of Securities, Service NL (Newfoundland and Labrador)
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon Territory
Superintendent of Securities, Department of Justice, Government of Nunavut

The Secretary
Ontario Securities Commission
20 Queen Street West
22nd Floor, Box 55
Toronto, Ontario M5H 3S8
Fax: 416-593-2318
comments@osc.gov.on.ca

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, Square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal (Québec) H4Z 1G3
Fax: 514-864-6381
consultation-en-cours@lautorite.qc.ca

RE: CSA Staff Notice and Request for Comment 23-323 *Trading Fee Rebate Pilot Study*

TD Asset Management Inc. (**TDAM**) appreciates the opportunity to comment on the Canadian Securities Administrators (**CSA**) proposed Trading Fee Rebate Pilot Study that would apply temporary pricing restrictions on marketplace transaction fees applicable to trading in certain securities (**Proposed Pilot**).

On behalf of our institutional clients, TDAM would like to express our support for the CSA's Proposed Pilot and our appreciation of the CSA's efforts to study and improve market quality for investors, including the extensive industry consultation that the CSA undertook to inform the proposed study. We believe that the Proposed Pilot will help the CSA to identify any issues more accurately and to focus on those that matter most. Further, we believe that investors will benefit substantially from a holistic evaluation of market quality. To that regard, we urge the CSA to finalize the study and initiate the Proposed Pilot as soon as possible to determine the magnitude of any harms or negative influence that trading fees and rebates may have on Canadian markets and to gather data that will help inform regulatory action to mitigate or address them.

Please note that this comment letter represents the views of TDAM and does not necessarily reflect the views of The Toronto-Dominion Bank or its subsidiaries.

TDAM's Response to the Specific Questions of the CSA Relating to the Proposed Pilot

In the attached Appendix, we have provided responses to questions 2 and 7 from Appendix II of the Proposed Pilot.

We appreciate the opportunity to provide comments on the Proposed Pilot. We recognize the importance of collaboration between industry members and regulators to advance the interests of Canadian investors through marketplace fee structures that are fair and transparent.

We welcome the opportunity to provide additional detailed commentary through in-person discussions with CSA staff.

Sincerely,

Bruce Cooper

Bruce Cooper
CEO and CIO
TD Asset Management Inc.

Appendix II: Questions for Market Participants

2. We propose to introduce the Pilot in two stages, with non-interlisted securities first, followed by interlisted securities. Do you believe that such staggered introduction will cause material problems for the statistical analysis and the results of the Pilot? If so, please describe your concerns in detail.

TDAM supports the introduction of the Proposed Pilot in two stages. We also support starting the Proposed Pilot with Canadian securities (stage one) then moving on to interlisted securities (stage two). By proceeding in this manner, institutional managers (such as TDAM) will find it easier to interpret and apply data from the Proposed Pilot.

7. We have had extensive discussions with a number of market participants on whether to include exchange-traded products (ETPs) in the Pilot, and some participants suggest that such an inclusion is warranted. Nevertheless, others point out that trading characteristics of ETPs are substantially different from those of corporate equities and including ETPs will present significant challenges in the matching stage and will likely confound the results in the analysis stage.

These participants and our own research identify the following concerns:

- ***most liquidity in ETPs is determined and provided by contracted market makers, and the ETP creation/redemption process represents its own source of liquidity;***

- ***matching characteristics that we propose to use for corporate equities do not have the same meaning for ETPs. For instance, ETP fund size is not a relevant metric, and ETP trading volume is usually not correlated with quoting activity or liquidity;***

- ***spillover effects of two types may confound the results. First, liquidity in ETPs relates to liquidity of the underlying basket of securities, and if the basket is significantly affected by the Pilot, the ETP will be affected too. Second, ETPs that follow the same baskets may be viewed not only as good matches, but also as substitutes for investment, hedging, and trading purposes. If one of them is selected to be treated, and the other is not, market participants may move between products, potentially confounding the results of the Pilot.***

The above-mentioned concerns make finding matched ETP pairs a uniquely challenging task. To the best of our knowledge, there is no established procedure for matching ETPs to study their trading costs.

As such, in relation to ETP inclusion, we ask that market participants consider the following questions: Given the challenges that ETP matching presents, can the goals of the Pilot be achieved without including ETPs in the sample? If ETP inclusion is important, can you propose a way to construct a matched sample that addresses the concerns identified above?

TDAM generally agrees with the exclusion of ETPs from the Proposed Pilot as ETPs trade very differently from corporate equities. Further, although ETPs may be subject to routing related conflicts of interest, it is unclear whether the Proposed Pilot as currently designed will be able to provide high quality insights into potential routing conflicts for those instruments. Although TDAM agrees that the pairing of ETPs cannot be done in the same manner as corporate equities, TDAM does not support a randomized approach when it comes to ETPs because "fairness" should not be the sole rationale considered. TDAM supports the CSA's further consideration of ETPs (as well as options and futures) but suggests that this may be better accomplished in the context of a broader study on derivatives routing conflicts of interest.

Kevin Sampson
President, Equity Trading
TMX Group Limited
300-100 Adelaide Street West
Toronto, Ontario
M5H 1S3
T (416) 947-4718
kevin.sampson@tmx.com

March 1, 2019

VIA EMAIL

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission, New Brunswick
Superintendent of Securities, Government of Prince Edward Island
Nova Scotia Securities Commission
Office of the Superintendent of Securities, Service NL (Newfoundland and Labrador)
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Department of Justice, Government of Nunavut

The Secretary
Ontario Securities Commission
20 Queen Street West, 22nd Floor
Toronto, Ontario
M5H 3S8
comments@osc.gov.on.ca

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, rue du Square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal (Québec) H4Z 1G3
Consultation-en-cours@lautorite.qc.ca

Dear Sirs/Mesdames:

Re: CSA Staff Notice and Request for Comment 23-323 *Trading Fee Rebate Pilot Study*

TMX Group Limited ("**TMX**" or "**we**") welcomes the opportunity to comment on behalf of its subsidiaries TSX Inc. ("**TSX**"), TSX Venture Exchange Inc. ("**TSXV**"), and Alpha Exchange Inc. ("**TSX Alpha**"), on the request for comments published by the Canadian Securities Administrators

("**CSA**") on December 18, 2018 titled "CSA Staff Notice and Request for Comment 23-323 *Trading Fee Rebate Pilot Study*" (the "**RFC**"), and which sets out a proposal for a pilot study on the impacts from a ban of trading rebates ("**Proposed Pilot**").

For purposes of this letter, all capitalized terms and terms otherwise defined in the RFC have the same meaning as set out in the RFC, unless otherwise defined in this letter.

We commend the CSA on its ongoing efforts to make Canadian capital markets more fair and efficient. Notwithstanding concerns we have regarding the appropriateness of a securities regulator involving itself in fee-setting or rate-capping, TMX has been and remains supportive of industry efforts to further reduce maker-taker fees to the extent that doing so does not negatively impact overall market quality and the competitiveness of Canada's capital markets. This is reflected in the actions taken by TMX in 2015 and 2016 to implement a phased program of reductions to maker-taker fees and rebates that we believe helped facilitate the CSA's subsequent decision to reduce fee caps applicable to ETFs and non-interlisted equities in May 2017. Our intent with the phased program of reductions was to take a thoughtful, measured approach to help identify appropriate fee levels, measure and analyze impacts, and deliver benefits to market participants while minimizing and understanding any resulting market risks. Participants were overwhelmingly supportive of the approach, as we were mindful that an aggressive reduction or ban of rebates could negatively impact both the market and investors.

These actions reflect how TMX embraces its role as Canada's national market operator. For over 160 years, we have been the champions of fair, efficient, resilient and liquid capital markets in Canada. This has allowed us, through TSX, TSXV and TSX Alpha to help provide investors with access to the largest source of liquidity and pricing for Canadian securities. Ensuring a healthy and vibrant secondary market is critical for the over 3,200 listed companies that have chosen TSX or TSXV as the home for their listed securities. It is with this perspective that we have formulated our position on the Proposed Pilot.

<u>Summary of TMX position on Proposed Pilot</u>

Despite the potential for the Proposed Pilot to increase TMX's market share of traded volume in Canada by decreasing competition, we are not supportive of the Proposed Pilot because it will introduce costs, burden and risks without reasonable certainty of deriving commensurate benefit.

The Proposed Pilot is neither justified nor reasonable because it will impose costs, burden and risks on the market, its participants, issuers and investors without a sufficient degree of certainty as to the potential benefits. There are viable alternatives that better manage or avoid the associated risks.

To proceed with a pilot of this nature, we believe that the onus rests with the CSA to demonstrate that there is sufficient cause to believe that the actions to be taken (i.e., a ban on rebates in this case) will produce benefits to justify the assumption of the associated costs and risks. The CSA has failed in this regard.

In our view, there is a lack of a sufficient degree of certainty regarding the extent to which a ban on rebates will address the concerns associated with the payment of rebates - those being conflicts of interest, increased segmentation and excess intermediation. There are also issues with the study design that make it more unlikely to yield meaningful conclusions that will help inform a subsequent policy decision regarding the payment of rebates. These issues include the singular focus of the Proposed Pilot on the impact of a ban on rebates, which will provide no information as to whether certain levels of rebates would be more appropriate or beneficial.

These uncertainties and issues lead us to the view that it is neither justified nor reasonable to impose the potential costs, burdens and risks of the Proposed Pilot on the market, its participants, issuers and investors without a sufficient degree of certainty of a net positive outcome. This is particularly so when considering that there are alternatives to undertaking the Proposed Pilot that would better address the concerns and/or the stated study objectives, without the associated risks.

Proceeding without a sufficient degree of certainty of realizing net positive outcomes in essence represents the imposition of regulatory burden - the end result of which may only be wasted industry efforts and resources, and the negative outcomes and costs caused by the unnecessary risk that will have been imposed on the broader market ecosystem.

The issues and alternative approaches are discussed in more detail in this cover letter and its appendices.

1. Proposed Pilot brings cost, burden and risk

We are concerned about the potential negative impacts of an aggressive reduction or ban of rebates. In our view, the Proposed Pilot seeks to implement a drastic form of price control that is not without potential cost, burden and risk for the market, participants, issuers and investors. These may arise from any number of potential outcomes and for any number of reasons, some of which are highlighted below (and many of which were also reflected in our comment letter[1] to a CSA request for comment from 2014 - the **"2014 Proposal"**).

- *Risks to liquidity and spreads*

  The payment of a rebate not only serves to attract liquidity to the marketplace, but also helps to offset some of the risk assumed by those that make their quotes publicly available and accessible, thereby contributing to price discovery. The risk of a rebate ban is that the current ecosystem pertaining to passive liquidity will be disrupted. Expected outcomes include the effective widening of spreads to compensate providers of liquidity for the loss of rebates, and even the withdrawal of certain trading participants entirely (which could also result in wider spreads). A comment letter to the 2014 Proposal from two of the three academics retained to assist with this Proposed Pilot cautioned of this same potential risk to liquidity, stating that if rebates are banned, "it is imaginable that (some of) these [electronic traders] no longer find it worthwhile to supply liquidity in Canada or for treatment group securities, and it is not clear who would supply liquidity in their stead."[2]

  The expected effective widening of spreads will translate into increased costs for investors' marketable orders due to worse execution prices. This negative outcome will impact retail orders in particular. It is irresponsible and unjustified to take money from Canadian

[1] See TMX comment letter to the 2014 Proposal at http://www.osc.gov.on.ca/documents/en/Securities-Category2-Comments/com_20140919_23-101_cowank.pdf.

[2] See comment letter dated September 19, 2014 from Katya Malinova and Andreas Park in response to the 2014 Proposal at http://www.osc.gov.on.ca/documents/en/Securities-Category2-Comments/com_20140919_23-101_malinovak-parka.pdf.

investors in the interest of trying to manage potential conflicts between dealers and their clients while experimenting with rebate impacts just so that we can see what will happen.

- *Impact to dealer and Market Maker costs*

  A ban on rebates can result in increased net trading fee costs for certain participants. Most notably, we estimate that dealer retail trade desks will see a net increase in their trading fee costs as a result of the loss of rebates. In turn, this can have negative impacts for retail investors if retail trade desks pass the added costs down in the form of higher commissions or decreased service levels.

  TSX Market Makers will also see their net trading costs increase. This may translate into a widening of spreads and reduction of liquidity. There is also the risk that they will no longer be able to continue to perform the vital role they play by augmenting liquidity and ensuring that a competitive two-sided market exists on TSX during continuous trading hours for all securities, including for the least liquid securities. Carrying out this primary role is critical for facilitating secondary trading and price formation, and for market stability.

- *Negative impact on attractiveness and competitiveness of Canadian market for issuers*

  To the extent the result of a ban on rebates is less liquidity and increased implicit trading costs, this could then have the follow-on effect of making our markets less attractive to new foreign investors such as foreign investment funds and pension funds, as well as to prospective issuers. The negative impacts to TSX Market Makers (discussed above) may compound this effect, particularly if it affects the TSX Market Maker's willingness to take on market making assignments in less liquid securities (which many new issuances are).

  The structure of the Proposed Pilot itself whereby test and control groups will be established also presents fairness concerns for issuers whose securities are part of the Treated Securities group. Securities within that group will face risks to liquidity and spreads not faced by comparable securities outside of that group. This may also affect perceptions about the attractiveness of Canadian markets for those issuers whose securities are subject to the rebate ban. We should strive to treat all issuers equally and not have some subject to impacts, good or bad, while others are not.

- *Negative impacts to related derivatives markets*

  There is potential for negative impacts to related derivative products such as equity options and futures where the underlying securities are subject to a ban on rebates. The RFC reflects no consideration being given to the extent to which spreads and liquidity on related derivatives might be negatively impacted by a widening of spreads or a reduction of liquidity in the underlying securities. Many of the same participants that make markets or undertake trading on Canadian listed equities also make markets and/or participate in trading in Canadian-listed derivatives, so it is conceivable that a reduction in their ability to continue to provide liquidity in equities could similarly impact their activities in the related derivatives. This could then have negative implications for the continued growth and attractiveness of the derivatives market in Canada.

- *Stifling of competition amongst marketplaces*

  One of the primary means through which marketplace competition currently manifests itself is through differentiation in fees and fee levels. Considering that the ability of marketplaces to compete with each other is already generally constrained by the application of regulatory principles, a ban on rebates would further reduce the extent to which marketplaces can compete.

2. Lack of reasonable degree of certainty as to effectiveness of rebate ban and meaningfulness of results

We have given careful consideration to the concerns outlined in the RFC, and how the study is intended to allow for an assessment of the impact of a ban on rebates towards addressing those concerns. In our view, the CSA has not demonstrated that there is a sufficient degree of certainty that a ban on rebates will address the areas of concern to justify proceeding with the pilot.

We have also considered the adequacy of the proposed study design for delivering meaningful results that can inform a subsequent policy decision regarding the appropriate level of rebates for Canada's diverse stock list. We find the study design to be lacking in this regard.

Our rationale for these views is outlined below.

There should be a sufficient degree of certainty that a ban on rebates will address the identified areas of concern in order to justify the burden and risks of the Proposed Pilot.

The premise of the Proposed Pilot is that the payment of rebates "may be" creating or contributing to areas of concern affecting client outcomes and market quality. These areas of concern relate to:

- conflicts of interest for dealer routing decisions that may be difficult to manage;
- increased segmentation of order flow; and
- increased intermediation on the most actively traded securities.

It is our view that there is a high degree of uncertainty regarding the extent to which a ban on rebates will address the areas of concern. The qualifying "may be" language used in the RFC indicates that the regulators may even share this view.

These questions arise because even with a ban of rebates, conflicts of interest will persist as fees will continue to differ between marketplaces. The continued presence of choice that might influence a dealer to preference lower fees for itself over execution quality for its customers (in cases where those two factors diverge) facilitates the continuance of the conflict.

Increased cost pressures from a rebate ban on dealers, and in particular on retail trade desks, will exacerbate this conflict further while also supporting the value proposition of inverted markets, and thereby perpetuating current levels of segmentation. Levels of intermediation on the most actively traded securities will only be impacted to the extent that rebates fuel excess liquidity on those securities - current experience indicates that intermediaries are willing to forgo the rebate on those most actively traded securities to provide liquidity on inverted markets and to take liquidity on make-take markets.

Given the uncertainties regarding the extent to which a pilot to ban rebates will address the areas of concern, it is not justified to impose the associated costs, burdens and risks on industry merely for the sake of exploring what might happen. Before entertaining the notion of a pilot, there must be a reasonable expectation of net positive outcomes supported by a clear articulation of the hypotheses - i.e., how, in the form of expected outcomes, a ban on rebates will address the areas of concern (being conflicts, intermediation, segmentation). The pilot's objective should then be to confirm those hypotheses. The CSA has not articulated these hypotheses, and thereby has not demonstrated why it is justified to undertake the pilot despite the associated cost, burden and risk.

For an elaboration of our views on these points, please refer to Section 1 of Appendix A.

The study design is inadequate to provide meaningful information that will inform a subsequent policy decision.

An inadequate study design increases the likelihood of inconclusive evidence from the Proposed Pilot that will preclude a subsequent policy decision on whether rebates should be banned, reduced or left untouched. Proceeding with the study in the face of this risk might only result in wasted industry efforts and resources, and the negative outcomes and costs caused by the unnecessary risk that will have been imposed on the broader market ecosystem.

Our concerns about study design arise for the following reasons:

a) The study is limited to examining the specific 'zero rebate' scenario, and ignores the reality that there are multiple levels of rebates that may or may not be appropriate for differing security types. A ban on rebates therefore does not allow for testing of rebate levels in between current levels and an outright ban, where rebates might be appropriate and their value optimized.
b) The metrics are primarily focused on market quality with no clear links having been established between the metrics and how they will be used to assess the extent to which a ban on rebates addresses the areas of concern.
c) There is no framework to govern how the observed outcomes and any other factors (e.g., differences in impact on costs for different participants, reduced marketplace competition, etc.) will influence a decision as to whether and at what levels rebates should or should not be allowed.

Also of note is that there has been no consideration given to studying the impacts on related derivative instruments and markets. Considering the direct relationship between a derivative and its underlying securities, it would also be important to assess the extent to which related derivatives and the participants and investors who trade those products are also impacted.

For an elaboration on the issues with study design that we believe will preclude the ability for the CSA to make a subsequent policy decision, please refer to Section 3 of Appendix A.

3. Viable alternatives should be considered first

Given the high degree of uncertainty surrounding the effectiveness of a ban on rebates towards addressing the areas of concern, and the likelihood of the study producing inconclusive results that will not be useful for informing a subsequent policy decision, adequate consideration should first be given to alternative means of addressing (or even further assessing) the identified concerns.

There are viable alternatives to address the areas of concern. These alternatives avoid the risks associated with the Proposed Pilot and should be considered first.

For example, there are already a number of requirements that should ensure that dealers are not putting their own interests ahead of their clients when executing client orders. The most notable of these are the dealer's obligation for best execution. New requirements and enhanced guidance on best execution were implemented in January 2018. Increased efforts to monitor and promote compliance with those requirements will ensure that dealers place sufficient attention on the management of these conflicts, while also addressing current perceptions about the levels of compliance. Disclosure of order handling and routing practices could also be enhanced with quantitative disclosure. These could include requirements for individualized disclosure for institutional customers similar to those recently approved for implementation in the US. We strongly believe that potential broker routing conflicts can be more effectively addressed and managed through enhanced enforcement, transparency, and disclosure rather than through the imposition of price controls.

Regarding segmentation of retail order flow, a broader policy discussion on this topic is needed before deciding that the best (or only) way to address the concerns is through a ban on rebates. It was expected that this broader policy discussion would occur through the long-awaited CSA consultation paper on internalization – the issues of internalization and segmentation of retail are inextricably linked.

Additional study on current levels of intermediation on the most actively traded securities should be the preferred route, particularly given the narrower focus of this concern to 'actively traded securities', and the potential for negative effects of a ban on rebates for securities further down the 'highly-liquid' to 'medium-liquid' liquidity curve. IIROC has a wealth of data that could be leveraged for this purpose. If an event study is needed, the implementation by the CSA of reduced fee caps in May 2017 for ETFs and non-interlisted equities could serve this purpose as it caused fee and rebate levels to decrease on make-take markets by more than 25%.

For further elaboration on our suggestions on alternatives for addressing the areas of concern, please refer to Section 2 of Appendix A.

4. If a study is needed, there are better approaches

Notwithstanding our view that proceeding with the Proposed Pilot is neither justified nor reasonable, if the CSA decides to proceed with a study, there are better approaches that will achieve the objective of studying the effect of a rebate reduction while minimizing the costs, burden and risks associated with the Proposed Pilot. These other approaches will avoid one of the primary shortcomings of the Proposed Pilot by accommodating the fact that rebates might be appropriate and their value optimized at a level between current levels and zero. The two recommended approaches are outlined below (with preference for the first).

There are better approaches to studying the impact of rebates, namely: learn from the US Pilot; or proceed with a gradual phased program of reductions similar to the approach previously implemented with success by TMX, and subsequently furthered by the CSA.

Option #1 – Let the SEC proceed with their pilot. Take the opportunity to observe and learn.

We suggest letting the SEC proceed with their pilot first (**"US Pilot"**)[3]. It will facilitate study of both a reduction of rebates and an outright ban, albeit in a different market. While the market structure in Canada is not identical to that of the US, it is sufficiently similar. The objectives and concerns underlying the US Pilot are also sufficiently similar (with conflicts of interest and increased intermediation being the primary drivers for the US Pilot).

The primary value of this approach is that it represents a no-cost, no-burden, no-risk opportunity to learn from the US experience before embarking on our own path. Regardless of the outcome of the US Pilot, taking this approach will retain flexibility for the CSA to take a range of subsequent action on rebates with the benefit of hindsight. For example, if the US Pilot identifies overwhelming positive outcomes from a ban on rebates, the CSA would still have the option of proposing a permanent ban. If instead the US Pilot identifies net harm from a ban but potential for net benefits from a reduction, the CSA would not be precluded from pursuing a more tailored study aimed at identifying the optimal level of rebates where net benefits are maximized.

More details on this approach are provided in Section 4 of Appendix A.

Option #2 – Implement a phased reduction in fees and rebates, and study the impact at each phase

If there remains a need to take immediate action to study the effect of a reduction in rebates, we suggest building on the success of TMX's program of phased reductions to make-take rates, and the subsequent fee cap reduction by the CSA, by extending this approach further. Specifically, we would propose further phased reductions for ETFs and non-interlisteds over a multi-year period whereby access fees are reduced at each phase. Alternatively, the approach could just as well be for phased reductions to rebates. Ongoing study could be performed to assess the impact during each phase before proceeding with the next.

The primary benefits of this approach as compared to a pilot of an outright ban on rebates are as follows:

- Better manages risk to market quality
- Provides opportunity to better study the impact of rebates at different levels across different asset and liquidity types
- Increases the likelihood of finding the level at which rebates are appropriate and their value is optimized
- Represents a fair approach for issuers, including ETFs, by treating all securities in a similar way
- Requires the market and participants to react *en masse*, increasing the informativeness and relevance of any related impact and analysis. This is in contrast to a pilot with limited

[3] See SEC final rules to implement the US Pilot at https://www.sec.gov/rules/final/2018/34-84875.pdf.

security coverage that may not cause reactions and participant behaviour that is fully representative of an actual no-rebate environment.

Interlisted securities could remain outside of this approach in order to avoid potential problems that would arise from significant differences in fees and rebates for trading in interlisteds between Canada and the US – the SEC has already indicated that they will not include interlisteds in the US Pilot if the CSA does not proceed with its Proposed Pilot. [4] Action on interlisteds could be determined later after taking into consideration the results of both the US Pilot and the phased reduction approach in Canada.

More details on this approach, including how reductions could be staggered to allow for a control group at each phase, are also provided in Section 4 of Appendix A.

<u>Other significant concerns</u>

We also have significant concerns with certain specific aspects of the Proposed Pilot, should it be implemented as proposed. The most notable of these are highlighted below.

1. Need to compensate TSX Market Makers

We have significant concerns with the potential impact of being unable to use rebates as a mechanism to help offset the costs that TSX Market Makers incur in carrying out their vital role in augmenting liquidity and ensuring that a competitive two-sided market exists for even the least liquid of TSX-listed securities.

TSX Market Makers are critical to price formation, liquidity, and market stability. They must be compensated for this role.

Paying rebates is an important mechanism to compensate TSX Market Makers. Our concerns related to TSX Market Makers together with suggested alternatives are outlined in more detail in our response to Question #3 of the RFC (see Appendix B).

2. Constraints on innovation and competition

The Draft Order to effect the Proposed Pilot includes a requirement for marketplaces to provide submissions to satisfy the OSC that any changes during the pilot period to marketplace fees or trading functionality will not "negatively impact the Objective of the Pilot".

Our experience with the existing processes for the regulatory review and approval of marketplace changes indicates that this new standard will have the effect of restricting every Canadian marketplace from introducing changes that are responsive to customer needs and necessary for business and competitive purposes.[5] It also raises fairness issues vis-à-vis other market participants who will not be subject to the similar restrictions on their ability to innovate and manage their business.

It is completely unreasonable to impose any barriers, whether explicit or implied, on a marketplace's ability to make changes so long as those changes conform with the specified

[4] See footnote 126 of the SEC's final rule at: https://www.sec.gov/rules/final/2018/34-84875.pdf.

[5] The US Pilot does not prevent US exchanges from making changes that benefit their clients.

parameters of the Proposed Pilot - i.e., so long as those changes do not involve the payment of a rebate for the treated securities.

Regulators should not impose procedural barriers that constrain innovation and competition. The barrier should be removed.

For more information on this issue, see Appendix C.

<u>Other comments and details</u>

We have a number of other comments and concerns with the Proposed Pilot. These, together with additional details on the views expressed in this cover letter, are reflected in the following appendices:

- Appendix A – Elaboration of key concerns
- Appendix B – Responses to specific questions in the RFC
- Appendix C – Comments on the Draft Order
- Appendix D – Other comments on the Proposed Pilot

Thank you for the opportunity to comment. We would be pleased to discuss any aspect of these matters at your convenience.

Yours truly,

K. Sampson

Kevin Sampson
President, Equity Trading
TMX Group Limited

APPENDIX A

ELABORATION OF KEY CONCERNS

In this Appendix we elaborate on our primary concerns with the premise and approach of the pilot. This includes a discussion on the extent to which a ban on rebates can and will address the areas of concern, highlighting the question as to the value of the pilot relative to the costs, burden and risks. We also discuss other means for addressing the areas of concern that remove (or reduce) the need to undertake a study of the impact of rebates.

In the context of the Proposed Pilot itself, we outline our concerns with the study design and question the extent to which, in its current form, it will provide information that is useful for informing a subsequent policy decision.

Finally, if there continues to be a need to study the impact of rebates, we identify better approaches for how to proceed that would be less intrusive and more effective for studying the impact of a reduction in rebates – whether at zero or somewhere between current levels and zero.

1) Extent to which a ban on rebates can and will address the areas of concern

Questions can be raised about whether a ban on rebates can and will address the identified areas of concern – specifically conflicts of interest, segmentation, and intermediation on the most actively traded securities.

In our view, and considering the costs and risks posed by the Proposed Pilot, it would only be appropriate to proceed if we have sufficient cause to believe that there is a reasonable likelihood of seeing net benefits – it is not appropriate to pursue the Proposed Pilot just so that we can see what might happen.

a) In relation to conflicts of interest

A ban on rebates will not eliminate potential conflicts of interest in dealer routing / posting decisions, as marketplaces will still be able to differentiate their fees. We expect that make-take marketplaces will likely employ charge-to-take / free-to-make fee models, while inverted marketplaces will likely be free-to-take / charge-to-make. This will result in continued incentives to take and post liquidity on the venues where doing so is the least expensive or free.

Even if marketplaces were required to use symmetrical pricing as had been contemplated by the academics, the conflict would only be eliminated if all marketplaces were then also required to charge the same amount. We are not suggesting this approach be prescribed for the Proposed Pilot, as it would require an even more aggressive form of price control that is not justified in light of there being alternatives for addressing the potential conflicts issues, which we outline below in Section 2 of this Appendix.

We also do not agree with the assumption that appears to have been made by the academics that if a ban on rebates causes a compression of fees, then any small differences in taking fees (or providing fees) between venues should become sufficiently immaterial such that they no longer cause brokers to route / post based on the inherent conflicts. For example, where active fees on make-take markets and posting fees on inverted markets are reduced to 4-5 mils on average, the assumption appears to be that the 4-5 mil difference between the posting fees on an inverted market (say 4 mils) vs. a maker-taker market (say 0 mils) would be so small that it should be immaterial to a broker's posting decision. The same applies for any differential in taking fees and the potential impact to a broker's routing decision.

However, we would not make this assumption, as we do not think it is not reflective of the practical reality of broker routing practices and motivations.

Over the past number of years, we understand that dealers have faced sustained downward pressure on the commissions that they are able to charge, while the costs of operating in an increasingly complex and technological environment have continued to rise. As a result, whether a 4-5 mil differential between taking / posting on one venue vs. another presents a material potential conflict of interest for a dealer may be entirely dependent upon its cost structure. Evidence suggests that a 4-5 mil differential will be material considering that brokers today will often preference a venue for even a one mil differential in fees (so long as best execution is met).

This might be even more relevant for retail trading desks. Based on an analysis we performed on retail desk activity on TMX markets over October and November of 2018, and after extrapolating and applying those results to estimate their taking activity on non-TMX markets,[6] we estimated that retail trade desks in aggregate will see a net increase in their trade costs (as measured by marketplace trading fees). Given this, a 4-5 mil differential in fees between markets may become increasingly material for retail trade desks, exacerbating the potential conflict further – particularly where that differential is needed to offset increased net trading costs.

This may then obscure the potential for observable results – e.g., if it is assumed that a dealer is currently routing / posting based on trading fee economics and a rebate ban will result in additional cost pressures for the dealer, then we should expect the dealer to make no change as it will continue to be incentivized to route in a fee-conscious manner. In this case, what will there be for academics to observe, and how will any lack of observed routing / posting changes help to inform the extent to which brokers might be routing / posting based on economics?

More generally, the question should be asked as to what consideration has been given to the potential for a null result, and the variety of potential causes. For example, there are a number of reasons that participants preference TSX and TSXV to post non-marketable client orders other than the quantum of the rebate paid – e.g., to ensure the order has the opportunity to participate in the opening and closing auctions. We see this behaviour exhibited by participants whether for over $1 stock where a rebate is paid, or for under $1 stock where both TSX and TSXV currently offer a low-price symmetrical pricing model despite other marketplaces paying a rebate. We expect this behaviour might not change.

There is also the possibility that dealers and vendors might not adapt their routing and posting logic due to the additional difficulties, costs and burden associated with setting up customized routing and posting logic applicable only to the set of Treated Securities. It will not be determinable that this was the reason for any perceived change or lack of change in routing and posting behavior.

As a result, there is a reasonable likelihood that the inaction of some participants will affect the usefulness of the data collected and undermine the validity of the study, causing us to question the value of the pilot.

[6] We assumed that non-marketable retail orders are typically posted on TSX or TSXV, so we did not also attempt to estimate any posting of retail orders on away markets.

b) In relation to segmentation

We similarly question the degree of certainty with which a ban on rebates will address issues pertaining to segmentation of order flow. As indicated by the RFC, the issue of 'segmentation' in the context of rebates is really about the segmentation of retail order flow. More specifically, it appears to us that this is centered on segmentation of liquidity-taking retail order flow that is drawn to inverted markets where a rebate is paid.

The premise of inverted markets is to provide a differentiated fee model that is intended to service cost-sensitive liquidity taking order flow – primarily representing retail trading interests. We expect inverted markets to continue to offer this value proposition in the absence of rebates through fee models that are free-to-take / charge-to-make. We also fully expect that in an 'all else being equal' scenario (e.g., where the retail order is 100 shares and all markets are displaying at least that amount), or where the retail liquidity taking order can reasonably be executed with little risk by displayed top of book volume across two or more venues, a dealer will prefer to pay the least amount of money for the same outcome. Considering that many retail orders fall into these two buckets, and assuming dealers will continue to prefer to pay less when presented with similar trade outcomes, the effect of a ban on rebates toward reducing segmentation of retail order flow may therefore be minimal. When you layer on our findings about the potential increase in net trade costs for retail trade desks from a rebate ban, this will mean that retail trade desks will continue to seek low-cost execution. We should therefore expect retail trade desks to continue to preference venues that pay a rebate where there is no harm to the client's order from doing so.

Segmentation of retail order flow will also continue to persist in the absence of rebates because of other mechanisms – e.g., speedbumps and guaranteed fill facilities that often have the result of matching proprietary trading interests against retail. These mechanisms are typically designed to offer size and lower cost execution for retail liquidity-taking orders, and we expect they will continue to offer that value proposition even in the absence of rebates.

To that end, we again question whether a pilot on the ban of rebates is the right direction to take if there is a lack of a reasonable degree of certainty of seeing net positive outcomes. Efforts towards addressing segmentation might be better placed elsewhere.

c) In relation to increased intermediation on the most actively traded securities

We do not dispute that intermediation at levels in excess of what otherwise might be needed to facilitate meaningful liquidity at narrow spreads may not be desirable.

However, the extent to which a ban on rebates will affect intermediation levels on the most actively traded stocks is not clear. The potential impact may depend on factors such as the extent to which liquidity provision strategies on highly liquid securities are rebate dependent, and the extent to which spreads on these securities are already naturally tick-constrained.

For highly liquid securities, our understanding is that turnover and 'first look' are of critical importance in order to facilitate profitable spread capture strategies. Ability to achieve turnover comes more naturally with highly-liquid securities. The ability to get 'first look' in Canada is often facilitated by inverted markets, where we have already seen it proven that participants are willing to forgo being paid a rebate and instead will pay for the opportunity to get that 'first look'. The evidence of this is that inverted markets now represent just over 20% of continuous traded volume in TSX-listed equities priced over $1,[7] with approximately 97% of that volume being attributed to stock that are on IIROC's highly-liquid list.[8]

Given the views expressed already about the potential that a ban on rebates would likely fail to change routing behavior of cost-sensitive liquidity taking retail flow, allowing segmentation of that flow to continue on inverted markets, then we might expect the opportunities to intermediate against this type of order flow will persist. This then raises similar questions as to whether pursuing the Proposed Pilot is appropriate when there isn't a reasonable degree of certainty of seeing net positive outcomes, and whether other means of addressing (or assessing) this area of concern may therefore be more appropriate.

We also caution that if liquidity provision strategies on securities are in fact highly rebate dependent, then a ban of rebates could conceivably have negative implications for liquidity provision and spreads. These risks may be more pronounced as you move down the liquidity curve from the "highly-liquid" to the "medium-liquid" stocks, where there is greater risk of a deterioration of liquidity and spreads having impact for issuers, investors and the overall quality and attractiveness of the Canadian market. For these securities, intermediation is therefore likely beneficial and may even be necessary. This also raises the question as to whether regulators should also be seeking to study the levels at which the value of intermediation is maximized, and how that might differ for securities across the liquidity spectrum.

2) Alternatives to addressing areas of concern

In our view, insufficient consideration has been given to alternative, and in our view better, means of addressing the identified concerns. Neither in the RFC nor in the 2014 proposal was there any discussion about alternatives and why the CSA thought imposing price controls via a ban on rebates was the best approach.

The RFC presumes that rebates are the sole drivers for the identified areas of concern, and the only logical means of addressing them. As already noted, we do not believe it is appropriate to impose a pilot and its attendant cost, risk and burden on industry, participants, issuers and investors if there are more effective means of addressing the concerns, or if the extent to which there is a reasonable likelihood of net positive outcomes from banning rebates is insufficiently clear.

Adequate consideration must first be given to alternative means of addressing the identified concerns before taking the more drastic step of testing a ban on rebates.

We discuss alternatives for addressing the areas of concern below.

a) In relation to conflicts of interest

Based on the RFC and our observations regarding industry dialogue on the topic of a rebate pilot both here and in the US, the dominant concern appears to relate to conflicts of interest for dealer routing / posting decisions. The standard practice for addressing conflicts of interest is to put policies and procedures in place to manage the conflicts. If the conflicts cannot be reasonably

[7] The group of securities from which the sample of 'Treated Securities' for the pilot will be drawn.

[8] All figures based on trading in TSX-listed securities over January 2019, excluding ETFs, auctions, intentional crosses and odd lots.

managed, then they should be avoided. By proposing to pilot a ban on rebates, the CSA appears to presume that the conflicts cannot be managed, and that they also cannot be avoided.

We agree that the inability to avoid the conflict is likely true given that dealers need to transact on marketplaces, and marketplaces are permitted to charge different fees. Dealers are therefore subject to a potential conflict of interest simply because of the presence of choice that provides them with the opportunity to act in their own interests over those of their clients.

The important question then becomes whether the potential conflicts can be reasonably managed.

The RFC's Draft Order reflects the view that the conflicts "may be difficult to manage". We disagree. There are a number of obligations already in place to address these conflicts. Dealers have (or at least should have) implemented policies, procedures and mechanisms to ensure compliance with these obligations. To say that the conflict cannot be adequately managed undermines the objective of the rules and any efforts made in good faith by dealers to comply. Using that to support the view that a ban on rebates is therefore necessary also implies widespread malfeasance on the part of dealers – this is unfair and does not help to breed confidence amongst investors.

We suggest that it would be more effective to better monitor and enforce the existing rules, and to enhance existing disclosure requirements to give clients and investors more information about how their orders are being routed – this in turn should have the effect of increasing dealer accountability and breeding confidence amongst investors. It would be a more productive use of regulators' and participants' time to focus their increasingly constrained time and resources in this way, rather than to divert their efforts towards managing a multi-year rebate pilot.

If it is later found that monitoring, enforcement, and the additional accountability afforded by enhanced disclosure is insufficient to address the conflicts of interest, then a pilot to reduce (or even ban) rebates might be justified.

i) Key obligations relating to the identified conflict of interest

The following represents what, in our view, are the key obligations already in place to govern the conflicts of interest that might arise when dealers are given the choice to preference their own interests ahead of their clients in connection with the payment of rebates (or even because of differences in fees between marketplaces that results in execution being more expensive on one venue vs. another):

- OSC Rule 31-505 – *Conditions of Registration* states in subsection 2.1(1) that "A registered dealer or adviser shall deal fairly, honestly and in good faith with its clients."
- National Instrument 31-103 - *Registration Requirements, Exemptions and Ongoing Registration Obligations* refers to registrants' obligations to deal fairly, honestly and in good faith with clients.
- IIROC Dealer Member Rule 42 – *Conflicts of Interest* requires IIROC dealers to address material conflicts of interest in a fair, equitable and transparent manner, and in consideration of the best interests of the client. It also requires that where the conflict cannot be addressed, it must be avoided.
- National Instrument 23-101 – *Trading Rules* states in section 4.2 that "A dealer and an adviser must make reasonable efforts to achieve best execution when acting for a client."

- IIROC Dealer Member Rule 3300 – *Best Execution of Client Orders* imposes more detailed requirements regarding a dealer's best execution obligations, and together with the related guidance in IIROC Notice 17-0138 would reasonably preclude a dealer from taking marketplace trading fees into consideration for best execution purposes where those fees are NOT passed on to the client (i.e., require a dealer to put best execution of its client orders ahead of the fee that it might pay to / rebate it might receive from a marketplace). IIROC Rule 3300 also establishes requirements for disclosure of order handling and routing practices, including whether fees are paid to or rebates are received from a marketplace, and whether routing decisions are made based on those fees paid or payments received.

ii) Better monitoring and enforcement as means to address conflicts concerns

The more significant of the above requirements are those that relate to best execution of client orders. It is our understanding that a dealer would likely not be compliant with best execution requirements if its policy or practice was to preference the opportunity to capture rebates or save fees for itself at the expense of execution quality for its clients. We believe that this understanding should be clear to all from the current requirements and guidance.

A review of the lead-up to the implementation of the current best execution requirements and guidance provides additional relevant context regarding the potential extent of the conflict and the likelihood of its manageability.

In 2014, IIROC published Technical Rules Notice #14-0082[9] regarding the results of its best execution survey (2014 IIROC Best Ex Survey). From that survey, it was found that the opportunity to capture rebates can be a factor in both retail and institutional routing decisions, with each of the retail and institutional groups collectively ranking that factor at approximately 5 on a 1-10 importance scale. The collective ranking of 5 by each of the groups for the 'rebate capture opportunity' factor does not itself identify the influence of an unmanageable conflict that needs to be addressed by a ban on rebates, in particular when considering that expected factors like immediacy / likelihood of execution, history of demonstrated liquidity, and client preference ranked higher. We acknowledge that about 6% of each of the surveyed retail and institutional brokers identified rebates as the most important factor – not a desirable finding, but certainly not high enough to suggest a widespread and unmanageable issue that can only be addressed through an overreaching ban on rebates.

In December 2015, IIROC published proposed enhancements to its best execution policies and guidance which were subsequently re-published for comment in October 2016, and implemented on January 2, 2018 (2018 Best Ex Requirements). The enhanced requirements and guidance more clearly identified marketplace fees and rebates as something that should be addressed in a dealer's best execution policies and procedures.

Dealers have now had over a year to ensure compliance with the updated best execution requirements. The amount of focus on conflicts arising from marketplace rebates and the implied distrust of the dealer community should have also helped to incent dealers to ensure that their policies on how fees and rebates are taken into consideration for routing / posting decisions are clear, and that their practices reflect the policy.

---

[9] http://www.iiroc.ca/Documents/2014/61ec2e27-7e15-4a42-9adc-5c7895d16c81_en.pdf

In light of this, and taking into consideration that the findings of the 2014 IIROC Best Ex Survey did not reveal widespread abuse that would otherwise warrant the drastic measure of banning rebates, it would be more appropriate to first attempt to directly address any remaining concerns through better monitoring and enforcement.

More specifically, IIROC could conduct a compliance sweep focused on best execution and the management of these conflicts. It is not an uncommon practice for regulators to conduct targeted compliance sweeps on new or enhanced obligations after having allowed a reasonable amount of time (in this case a year) for registrants to develop and refine their internal policies and practices. The sweep could be followed by a report on the outcomes with recommendations on best practices and any identified areas for improvement. Undertaking the compliance sweep would ensure dealers put sufficient attention on the management of these conflicts, and should provide comfort to the regulators that a rebate pilot is not necessary. Reporting on the sweep would have similar effect by helping to address current perceptions about the levels of compliance.

iii) Enhanced disclosure as a means of increasing dealer accountability

Enhancements can also be made to dealer reporting obligations that will increase dealer accountability and reduce the likelihood that a dealer's practices do not conform with its disclosed policies.

The 2014 IIROC Best Ex Survey also reviewed dealer disclosure practices regarding fees paid and rebates received. At the time, it found certain aspects of dealer disclosure to be lacking, particularly in cases where a dealer was passing the fees on to its clients but was retaining any rebates received.

This issue was addressed through new disclosure requirements imposed as part of the 2018 Best Ex Requirements. Dealers must now disclose the factors it considers for the purposes of achieving best execution and a description of its order handling and routing practices. This includes disclosure of whether fees are paid or rebates are received for client orders routed to a marketplace, the circumstances under which those fees / rebates will be passed on to the client, and whether routing decisions are made based on fees paid or rebates received.

These requirements, while helpful, are narrative in nature and could be enhanced by quantitative disclosure. Quantitative disclosure could help to shed additional light on dealer routing decisions and their outcomes, and the extent to which fees and rebates may be a factor in those decisions. For example, by-venue statistics regarding average per share fees or rebates for liquidity removing and liquidity providing trades reported across common categories like order size grouping and stock group liquidity profile, combined with order outcome metrics such as fill rates using similar category groupings, would increase dealer accountability by providing information that might help a client to identify whether a dealer might be routing to venues with worse outcomes but higher rebates / lower fees.

We note that quantitative disclosure is already mandated in the United States via 'Rule 605' which mandates certain order and trade stats reporting by trading venues, and 'Rule 606' which requires dealers to make certain quantitative disclosures pertaining to routed orders. While the Rule 605 and 606 reports may be viewed as unworkable by mainstream investors and in need of an update, they have at least served the purpose of ensuring that a certain level of transparency is maintained in order to help impose a measure of accountability on the part of dealers.

Recent enhanced disclosure requirements in the US applicable to 'not held' orders[10] are also said to be intended to help institutional customers by providing them with a standardized set of individualized disclosures concerning the dealer's handling of their orders.[11] The new requirements will provide additional individualized information reported on a venue-by-venue basis for orders routed by the dealer regarding:

- order routing (e.g., total routed, average size)
- order execution (e.g., fill rates, average net fee or rebate, midpoint vs. spread crossing and spread capturing trades)
- liquidity providing orders (e.g., average time to execution and average net fee or rebate for executed passive orders)
- liquidity taking orders (e.g., shares taking liquidity, average net fee or rebate for executed taking orders)

The SEC has stated that they believe "this information would be useful for customers to evaluate their 'not held' order flow with a particular broker-dealer during the reporting period, the broker-dealer's methods for achieving best execution for such order flow, and the potential for conflicts of interests and information leakage associated with such methods."[12]

In our view, this SEC belief statement exemplifies the rationale for why similar quantitative disclosure should be imposed in Canada. The lack of quantitative disclosure in Canada regarding order handling and routing is an obvious regulatory gap that should be filled. Regulators cannot justify the more drastic and intrusive step of banning rebates to address potential conflicts of interest, if they have not first taken steps to close this gap.

b) In relation to segmentation

As mentioned earlier, we suspect that segmentation of retail order flow will persist under a rebate ban for a number of reasons. These include continued dealer cost pressures to seek the cheapest execution in an all-else-being-equal scenario, and the presence of mechanisms like speedbumps and guaranteed fill facilities that will continue to deliver on their value proposition of size and lower cost execution for retail order flow.

If there are concerns about the current level of segmentation of retail order flow, then before undertaking a study to test a hypothesis about the degree to which segmentation might be affected by a ban rebates, the CSA and market participants should engage in the policy discussion on segmentation that was promised with the long-awaited CSA concept paper on internalization.

No conversation on internalization is complete without a corresponding conversation about segmentation – the two are inextricably linked as one of the potential drivers for a deliberate effort by a dealer to internalize orders is said to be the desire to capture the value of its retail order flow (whether for the firm itself, or for the firm's clients). The outstanding internalization concept paper could lead to any number of outcomes which might help to address concerns about segmentation without necessitating a ban on rebates. These could range from limitations on internalization practices to a curtailment of existing market mechanisms that are clearly designed to make retail order flow accessible exclusively to a limited few (e.g., guaranteed facilities offered by an

[10] Orders where the dealer has been given discretion as to price and time to execute.

[11] See SEC final rule pertaining to these enhancements at: https://www.sec.gov/rules/final/2018/34-84528.pdf.

[12] See page 100 of SEC final rule pertaining to these enhancements at: https://www.sec.gov/rules/final/2018/34-84528.pdf.

exchange on securities it does not list, and for which it has no responsibility to the issuers to promote a healthy secondary trading environment for those securities).

In addition, if the alternatives we recommend on conflicts of interest are implemented, and IF dealers are in fact currently routing with their own interests ahead of those of their clients, then the rectification of those conflicts through our recommended actions would also help to reduce current levels of segmentation. This would occur if routing and posting decisions are actually being determined based on fees and rebates, and on the assumption that best execution would then necessitate a change in those routing and posting decisions (which it might not for many trades where the order is easily satisfied by top of book volume).

c) In relation to increased intermediation on the most actively traded securities

As mentioned earlier, the effect of a ban on rebates on intermediation levels for the most actively traded securities is not clear, and there is the potential for adverse effects for securities that are further down the liquidity curve. As a result, it would be prudent to consider other means of addressing or even assessing the levels of intermediation and their effects before pursuing the Proposed Pilot.

The first step would be to leverage existing data to study and provide transparency on current levels of intermediation, and to then attempt to study the impact. IIROC has both a wealth of data and a method for categorization of trader types that should allow it to study the levels of intermediation based on interactions between various trader types. IIROC could then undertake an assessment of differences in outcomes and execution quality across trader types based on factors such as counterparty to the trade, liquidity category of the stock, or under certain scenarios – e.g., where the circumstances in which the trade occurred were such that the 'intermediary' counterparty to the trade was providing volume that wasn't otherwise necessary in order to fill the sent / sprayed order as compared to circumstances where the volume provided by the 'intermediary' was needed.

If instead an event study is needed, then the implementation of the fee cap in May 2017 for ETFs and non-interlisted equities priced over $1 which saw active fees and corresponding rebate levels drop by over 25% could serve as the event around which that study could be based.

Conducting a study like the above would help to shed light on not only the levels of intermediation for the most actively traded securities, but also where and when that intermediation provides benefits or imposes costs. This would then help to inform the appropriate next steps towards addressing concerns about intermediation on the most actively traded securities, including whether a reduction in rebates on these securities might be warranted.

3) Concerns regarding whether the study design will provide information that will be sufficient to inform a subsequent policy decision

In the preceding sections we provided our rationale as to why the Proposed Pilot should not proceed without a reasonable degree of certainty of a net positive result, and considering that there are better alternatives to addressing the areas of concern that are less intrusive and present less risk.

The rationale for not proceeding with the Proposed Pilot is further bolstered by concerns with the study design that raise questions regarding the extent to which the study, in its current form, will provide information that is useful for informing a subsequent policy decision. These concerns arise primarily for the following reasons (to be outlined in more detail in this section):

a) The study is limited to examining the specific 'zero rebate' scenario, and ignores the reality that there are multiple levels of rebates that may or may not be appropriate for differing security types. A ban on rebates therefore does not allow for testing of rebate levels in between current levels and an outright ban, where rebates might be appropriate and their value optimized.

b) The metrics are primarily focused on market quality with no clear links having been established between the metrics and how they will be used to assess the extent to which a ban on rebates addresses the areas of concern.

c) There is no framework to govern how the observed outcomes and any other factors (e.g., differences in impact on costs for different participants, reduced marketplace competition, etc.) will influence a decision as to whether and at what levels rebates should or should not be allowed.

It concerns us that the regulators are willing to undertake the Proposed Pilot, with its potential costs, burden and risks, for the sake of attempting to answer a singularly-focused question about the impact of a ban on rebates.

It also concerns us that there is a lack of a clearly defined hypotheses as to expected results, and of a framework for how to interpret and apply those results for policy decision-making purposes. As intimated by other comments made in this letter – the purpose of the study should be clear, and it should be something more than facilitating an exploration of what will happen if rebates are banned.

a) A ban on rebates does not allow for testing of rebate levels in between current levels and an outright ban, where rebates might be appropriate and their value optimized.

The RFC indicates that only a ban on rebates is being tested because there are too few Canadian securities to allow for an analysis that provides meaningful policy advice, and that to spread the low number of 'useful securities' across more buckets than are being proposed would lead to "statistical estimation problems".

While we are not in a position to dispute what the right number of securities is to avoid these types of problems, we are confident in saying that a singular focus on a ban of rebates will not tell us anything conclusive about whether there might be some other level between current levels and zero at which rebates might be valuable and optimized – i.e., there may be some other level of rebate that better balances the potential benefits of a reduction in rebates against the costs.

A worst-case outcome is that the Proposed Pilot indicates a negative result from a ban on rebates, but a glimmer of some potential for net benefits if rebates were instead reduced by some unknown amount. If that were to occur, then what? Another multi-year pilot to test the effects of rebates at various levels?

Whether rebates might be optimized at some other level will still be an open question even if the Proposed Pilot indicates a net positive result from a ban (however that is to be measured). Without testing different rebate levels, it will not be known whether any net positive result observed from a ban on rebates falls within the zone where each mil reduction in rebate produces negative marginal returns.

A singular focus on a ban of rebates also assumes a one-size fits all structure for our market and eliminates the opportunity for other important learnings. Before heading down a path where a ban on rebates is made permanent, we should first take the opportunity to try to understand the extent to which different securities (e.g., types, liquidity levels) react differently at various price levels. For example, the point at which returns go from 'diminishing' to 'negative' is likely at a different rebate level for a 'medium-liquid' security than a 'highly-liquid' security.

b) The metrics are primarily focused on market quality with no clear links having been established between the metrics and how they will be used to assess the extent to which a ban on rebates addresses the areas of concern.

The metrics and approach proposed for the statistical analysis do not appear to be uncommon for academic event studies conducted on equities markets. We expect that the study as designed should be sufficient to allow the hired academics to create an academic paper on the market quality impact from a ban on rebates that can withstand some reasonable level of academic scrutiny and allow it to be formally published. The study should also provide some level of insight into any differences in impacts between certain participant and trader types.

However, what is needed is not an academic event study on market quality impacts. In order to later support a policy decision related to rebates, there should be clear links between the metrics and the areas of regulatory concern that the study purports to be intended to address. In our view, these links are lacking and additional information would be needed in order to make the proper assessment.

For example, in relation to the effect of a rebate ban on conflicts of interest, the following fundamental questions arise:

- How will metrics regarding spreads, quoted depth, volatility, implementation shortfall and passive order execution quality inform the extent to which a ban on rebates has addressed conflicts of interest to a sufficient extent that dealer routing decisions are either no longer influenced by conflicts of interest, or that any associated negative effects / outcomes from inappropriate dealer routing decisions are minimized?
- Without having knowledge of a dealer's (and trade desk's) routing or posting logic, cost structure, and best execution policies prior to the commencement of the study, or any knowledge or understanding of changes the dealer or trade desk may have deliberately made (or not made) to its routing or posting logic during the course of the study, how will the academics be able to distinguish between any variety of potential causes for a perceived shift in routing or posting behaviour, including those that may arise from:
  - a deliberate change in routing or posting logic made in accordance with pre-existing best execution policies that required changes be made to reflect shifts in market dynamics otherwise caused by a ban on rebates;
  - a reaction of pre-existing routing or posting logic (as opposed to any change to that logic) to shifts in market dynamics otherwise caused by a ban on rebates; or even
  - changes in routing or posting logic that may have been made to prioritize best execution for the client over the dealer's / trade desk's own interests.
- In the same line of reasoning, without knowing a dealer or trade desk's existing routing or posting logic, cost structure, and best execution policies, how will the academics know that any lack of perceived change in routing or posting behaviour was either a function of

a deliberate decision in accordance with those best execution policies to not make changes, or the result of the continued inappropriate influence of conflicts of interest?

Similar questions can also be raised in the context of the effects on segmentation. For example:

- How will metrics regarding spreads, quoted depth, volatility, implementation shortfall and passive order execution quality inform the extent to which a ban on rebates has reduced segmentation?
- How will academics attribute any observed change in metrics to a reduction in segmentation as opposed to a change in either the extent to which conflicts are affecting behaviour, or the level of intermediation on actively traded securities?

Regarding rebates and levels of intermediation we don't disagree that a number of these metrics, including spreads and quoted depth, might help to provide insights into the extent to which a ban on rebates might impact these metrics. This is contingent, however, on the ability of the academics to then attribute any such effects to a change in the level of intermediation.

c) *There is no general framework to govern how the observed outcomes and any other factors (e.g., differences in cost impacts for different participants, reduced marketplace competition, etc.) will influence a decision as to whether and at what levels rebates should or should not be allowed.*

Also lacking is a general framework to govern how the observed outcomes, and any other relevant factors (like differences in cost impacts for different participants, and reduced marketplace competition) will influence a decision as to whether and at what levels rebates should or should not be allowed. Such a framework is necessary in order to help guide interpretation of results and inform the subsequent policy making process.

Without a framework, there will be no goal-posts to help decide whether the results are 'good' or 'bad', leaving the results open to broad interpretation and reducing the likelihood of wider industry buy-in on interpretation and next steps. This in turn presents a significant risk that regulators will be unable to move forward with any subsequent actions on rebates, resulting in a potential reversion to the status quo despite the efforts, costs and risks associated with having undertaken the Proposed Pilot.

In light of this, we believe that an appropriate framework with a reasonable level of industry buy-in must be established up front (acknowledging that there will never be complete buy-in).

The following series of questions reflects examples of the types of items that would need to be addressed in formulating and / or applying an appropriate framework for the interpretation of the study results, and to help inform subsequent policy decision-making.

- What are the hypotheses regarding what we expect to observe from a ban on rebates? Alternatively, what do we hope to see?
  - Do we expect to see spreads widen?
  - Do we expect to see migration of passive order flow away from the listing market?
  - Do we expect to see reduced reliance on inverted markets for liquidity-taking activity?

    - Do we anticipate changes to general market dynamics? (For example, an increase in dark trading levels that might occur if reduced taking fees on make-take markets leads to increased adverse selection for passive orders posted on those markets.)
    - Are there target levels of segmentation and intermediation that are considered more appropriate? (Presumably yes if an implied premise of the Proposed Pilot is that these lines have already been crossed.)
    - Do we expect to see evidence that dealers have prioritized their own interests ahead of their best execution obligations by taking deliberate steps to change routing and posting logic to migrate to better execution opportunities? (And shouldn't this be explicitly stated as an expectation if the premise of the Proposed Pilot is that dealers are currently unable to manage this conflict?)

- How will a 'good' vs. 'bad' outcome be determined?
    - Will it be determined in the context of overall market quality impact? The degree to which a ban on rebates reduces or addresses the areas of concern? The effect on certain individual metrics? A combination of some or all of these factors?
    - How will positives and negatives be weighed against each other?
        - What factors are more (or most) important?
            - For example, a reduction in routing and posting based on fees? Reduced segmentation and intermediation? Improvements in specific market quality metrics?
        - How will it be decided that the negatives for one factor / group are outweighed by the positives for another? For example:
            - if increased passive order execution quality is observed, but active execution quality suffers because a reduction in quoted depth results in wider effective spreads, or
            - if costs for retail investors increase from wider effective spreads, but institutional investors (who represent the interests of retail investors) see improvements because they are more often able to capture vs. cross the spread.

- How will other factors be measured and taken into consideration? These factors could include:
    - Reduced competition between Canadian trading venues arising from:
        - a reduced ability to innovate through fee models that involve the payment of trading rebates, together with
        - the effect of existing restrictions arising from the application of regulatory principles that currently preclude innovative trading features and promote homogeneity across marketplace offerings.
    - Reduced execution quality on visible markets and the potential longer-term risk to price discovery if an increase in dark trading is observed
    - The impact of reduced overall liquidity on the competitiveness and attractiveness of Canadian markets for prospective issuers
    - The ability for dealers to absorb costs and the impact on their competitiveness and financial viability if they were to experience an increase in net trading fees
    - The degree to which any costs or cost savings have been passed down to end-investors

- Any effect on retail investor sentiment and willingness to invest / trade in Canadian-listed securities if spreads are observed to have widened

- How will a net positive / net negative outcome in the context of a ban on rebates inform a subsequent policy decision?
  - What degree of excess positive return (e.g., minimal, moderate, significant) is required to justify proceeding with a ban on rebates?
  - If a net negative outcome is observed, in what circumstances would the regulators seek to undertake a separate pilot to test whether net positive outcomes can be achieved at some level of rebates between zero and current levels?

4) Alternative approaches to assessing the impact of rebates

To recap the evolution of our position to this point:

- In Section 1 of this Appendix, we provided our rationale for not proceeding with the Proposed Pilot without a reasonable degree of certainty of a net positive result.
- In Section 2 of this Appendix, we provided additional support for not proceeding given better alternatives to addressing the areas of concern that are less intrusive and present less risk than a pilot to ban rebates.
- In Section 3 of this Appendix, we further bolstered our rationale by highlighting how the study, in its current form, will not provide information that is useful for informing a subsequent policy decision.

Notwithstanding that our views to this point demonstrate that proceeding with the Proposed Pilot is not justified, if it is decided nonetheless to proceed, then we believe there are better ways to proceed that can achieve the objective of studying the effect of a reduction of rebates towards addressing the areas of concern while minimizing the costs, burden and risks. We have outlined these below, with the preferred option in terms of minimization of cost, burden and risk being the first.

Option #1 – Let the SEC proceed with their pilot. Take the opportunity to observe and learn.

The potential for negative impact to Canadian market quality may be greater than it is for the U.S. Our market is considerably smaller than the U.S. market and our ability to absorb a shock to market structure that could negatively impact liquidity is likely lower. This means that the potential for negative effects to market quality in Canada, including spreads, is higher.

Given this, together with the questions we have raised about the value of proceeding with the Proposed Pilot, and the risk that the study design will only lead to regulatory paralysis post-Pilot, our view is that the more sensible and responsible course of action for Canada would be to let the SEC proceed with their pilot first. We should take advantage of this no-cost, no-burden, no-risk opportunity being presented to learn from their experience before embarking on our own path.

There is also no longer the same concern about the potential negative impact to interlisted order flow between Canada and the US that informed our prior recommendation to let the SEC proceed first, but to tag along on interlisteds. The SEC has indicated in their final rule that interlisted securities will not be included if the Canadian Proposed Pilot does not proceed.[13] This now affords

[13] See footnote 126 at page 40 of the SEC's final rule at: https://www.sec.gov/rules/final/2018/34-84875.pdf.

Canada the ability to fully leverage the opportunity being provided to study the impact in the US first.

We acknowledge that the market structure in Canada is not identical to that of the US, but it is sufficiently similar. The objectives and concerns underlying the US Pilot are also sufficiently similar, with conflicts of interest and increased intermediation being the primary drivers. There will be valuable observations to be made from the US Pilot, while allowing risks to Canadian markets to be avoided.

The value of allowing the US Pilot to proceed and using it to inform any subsequent next steps can be demonstrated by the following high level analysis of what those next steps for Canada could be, based on the different potential overall outcomes for the US Pilot:

- *US Pilot indicates clear net negative outcomes; SEC decides not to proceed with permanent action on rebates or any further reduction in access fee levels*

  In that case, it is likely that most Canadian participants would not agree to pursuing an outright ban. The risk would not be justifiable based on the US experience. This scenario exemplified by the US experience with its 'tick size pilot' – we believe that the results of that pilot make it highly unlikely that Canadian participants and regulators would support proceeding with a similar tick size pilot in Canada.

  However, it is possible that there could still be appetite in Canada for a further measured reduction of fees and rebates. If so, the Canadian regulators at that point could assess whether further steps should be made to study reductions (as opposed to a ban), through either a pilot of varying fee levels or through a phased gradual lowering of fees with appropriate study points after each phase (see our Option #2 to the Proposed Pilot below for more on this approach).

- *US Pilot indicates inconclusive outcomes; SEC takes no further action on rebates due to lack of clear justification*

  In this scenario, we believe it would remain likely that most Canadian participants would not agree to pursuing an outright ban. It would also be likely that there would be too many questions about whether operating a similar pilot in Canada would yield a similar result.

  Regardless, the avenues available to the CSA at that point would be similar to those outlined for the preceding scenario. Further, if the inconclusive outcome of the US Pilot was a function of the study design, then the CSA would be able to avoid those design issues if it still chose to proceed with its own pilot.

- *US Pilot indicates net negative outcomes from a ban on rebates, but net positive outcomes from a reduction in the access fee cap (which also resulted in reductions in rebate levels)*
  In this case, it is again likely that most Canadian participants would not agree with pursuing an outright ban given the risks of doing so not being justified based on the US experience.

  However, the outcome of the US Pilot in this scenario could likely be used to justify a more targeted study by the CSA of various fee and rebate levels, or the gradual reduction approach outlined under Option #2 below.

- *US Pilot indicates clear net positive outcomes from a ban on rebates and proceeds with a permanent ban*

  In this case, Canadian regulators would be left with a few different options. For example, the CSA may use the US Pilot outcomes in this case this to justify proposing a permanent ban.

  If there was still support in this instance for a Canadian study, then the CSA would be able to better tailor the study to hone in on any remaining questions – e.g., whether there may be different levels at which rebates are optimized for different asset types or liquidity levels.

  Regardless, a possible outcome from a decision by the SEC to permanently ban rebates might also be for Canadian marketplaces to review and adjust their fees for interlisted securities to keep fees and rebates reasonably aligned with the US. This may then put downward pressure on trading fees and rebates for all other security groups – the end result being a market-wide lowering of fees and rebates that could make an outright ban in Canada unnecessary.

While the US Pilot is underway, the CSA and the retained academics could still observe its impacts to determine whether any steps toward a pilot in Canada should be taken. At the same time, it would also allow time to use other events involving a market-wide or significant rate change in Canada to study the impact of those events and to test and refine the metrics and framework for the Proposed Pilot. Two past events that may be beneficial to study are the following:

- The implementation of the fee cap in May 2017 for ETFs and non-interlisted equities priced over $1 which saw active fees and corresponding rebate levels drop by over 25%.
- The fee changes made by TSX and TSXV in November 2013 whereby maker-taker pricing for securities priced under $1 was abandoned in favour of symmetrical pricing. This might provide valuable insights into the potential effects of a wider ban on rebates, particularly for low-priced less-liquid stock not captured by the Proposed Pilot.

Option #2 – Implement a phased reduction in fees and rebates, and study the impact at each phase

TMX instituted a phased program of reductions in maker-taker rates prior to the implementation by the CSA in May 2017 of the 17 mils per share fee cap applicable to ETFs and non-interlisted equities. Our intent with the phased program of reductions was to take a thoughtful, measured approach to help identify appropriate fee levels and deliver benefits to market participants. We were mindful that an aggressive reduction or ban of rebates could negatively impact both the market and investors.

Through the two phases of reductions undertaken by TMX, we did not identify material negative impacts to market quality. We believe this contributed to the CSA's willingness to implement a reduction in the fee cap applicable to ETFs and non-interlisted equities from 30 mils per share to 17 mils (given that active fees for ETFs and non-interlisteds were already well under 30 mils by that time).

Considering the success of that approach, we propose something similar under this Option #2. Specifically, we would propose further phased reductions for ETFs and non-interlisteds over a multi-year period whereby access fees are reduced at each stage. Alternatively, the approach could just as well be for phased reductions to rebates. Ongoing study would be required to assess the impact during each phase before proceeding with the next.

An approach of phased reductions has a number of benefits, the most significant of which relates to the management of risk that can otherwise come with any sort of shock to market structure (like the shock from testing an outright ban on rebates).

The primary benefits of this approach as compared to a pilot of an outright rebate ban are as follows:

- Better manages risk to market quality
- Provides opportunity to better study the impact of rebates at different levels across different asset and liquidity types
- Increases the likelihood of finding the level at which rebates are appropriate and their value is optimized
- Represents a fair approach for issuers, including ETFs, by treating all securities in a similar way
- Requires the market and participants to react *en masse*, increasing the informativeness and relevance of any related impact and analysis. This is in contrast to a pilot with limited security coverage that may not cause reactions and participant behaviour that is fully representative of an actual no-rebate environment.

This approach could be carried out on ETFs and non-interlisteds while the US Pilot is underway. Once the US Pilot is complete, any action (or lack of action) taken by the SEC could then be mirrored in Canada for the interlisteds. By the time the US Pilot is concluded, the phased approach to reductions for ETFs and non-interlisteds will have likely been completed, making it easier to implement a reduction for interlisteds to correspond with any permanent reduction imposed by the SEC.

To the extent there are concerns about the ability to study the reductions under this approach without a control group, this can be addressed by the suggestion made by Morgan Stanley in support of a similar approach of gradual reductions to stagger implementation for 50% of the included symbol list.[14] To further build on their suggestion, the first phase would see 50% of ETFs and 50% of non-interlisted equities subject to a ‘X’-mil reduction to the fee cap (Group 1) while the other 50% would remain untouched (Group 2). In the second phase, Group 2 would see rebates reduced ‘X’-mils below the levels applied to Group 1, while Test Group 1 would remain untouched at the levels applied in the first phase – the result being that in the second phase, Test Group 1 becomes the control group. Each subsequent phase would see a similar leap-frogging of one group over the other. In this way, all securities would see reductions, but the staggering would provide opportunity for comparison between a test and control group.

[14] See Morgan Stanley comments to SEC on US Pilot available at https://www.sec.gov/comments/s7-05-18/s70518-3892685-162917.pdf.

Appendix B

Responses to Specific Questions from the RFC

Question 1: *We propose to define a security as medium-liquid if it trades at least 50 times a day on average and more than $50,000 on average per trading day over the past month. Do you believe that this definition is appropriate? If not, please provide an alternative definition and supporting data, if available, to illustrate which securities your definition captures.*

The question of whether the above definition appropriately captures what should be considered to be “medium-liquid” equally applies to IIROC’s definition of “highly-liquid”, which is similarly reliant on both the daily number and value of trades, and which does not appear to have been updated since that definition was first implemented in 2005, despite both trading activity and stock values undoubtedly having increased since that time.

The result of applying these definitions is that, as a % of market-wide trading in TSX-listed non-ETF symbols priced over $1 (the academics’ target pool of securities), “highly liquids” represented over 95% of each of the average daily volume and value traded over November through January. The majority of the remaining less-than-5% of average daily traded volume falls within the “medium-liquid” category. While we would expect skew of average daily traded volume and value towards the highly-liquid bucket, the degree of skew seems excessive and may be a function of an outdated regulatory definition that is over-representative of what should presently be considered ‘highly-liquid’ for Canadian markets.

We therefore question the relevance of these definitions, and whether the academics’ focus would be more appropriately placed on first defining the minimum level of liquidity that a stock needs to allow for a reasonable likelihood of producing meaningful results, followed by a categorization of the stock within that group as “more liquid” and “less liquid”.

Regardless of where any minimum level is set, our primary concern is that it be set at a level that will avoid an outcome where results are likely to be inconclusive. The academics have even cautioned on page 24 of the RFC, regarding the inclusion of ‘medium-liquid’ securities, that “due to statistical noise the analysis of these securities may be inconclusive.” They go on to say that they will treat these separately from the highly-liquids “to ensure that the less liquid securities do not contaminate the analysis of liquid securities.”

It appears from the statements by the academics that the minimum they have proposed of 50 trades and more than $50,000 in value is too low, and should instead be set at a higher level.

We should not be including securities that the academics believe are unlikely to provide meaningful results. This is counterproductive to the objectives of the pilot and imposes risks on those securities without a reasonable prospect of a return.

Question 2: *We propose to introduce the Pilot in two stages, with non-interlisted securities first, followed by interlisted securities. Do you believe that such staggered introduction will cause material problems for the statistical analysis and the results of the Pilot? If so, please describe your concerns in detail.*

In Section 2 of Appendix A we outline better alternatives to addressing the identified areas of concern. In Section 4 of this Appendix, we propose more useful approaches to studying the impact of reduced rebates if it is decided that a study is necessary.

However, in the unfortunate event the Proposed Pilot is to proceed as currently designed, we would be supportive of a staggered introduction as it would help to reduce certain risks. These include the risk identified by the academics of an unexpected market-wide event at or shortly after the launch of the Proposed Pilot that renders any findings unreliable, as well as the risk of harm to market quality (for example to liquidity and spreads) that could be contained to a smaller first wave of sampled stock if the observable impacts upon roll-out indicated sufficient harm to justify an immediate end to the pilot.

There is a better approach to staggering, however, that would be more effective at managing the risks to market quality than the approach proposed. This better approach would involve three separate stages:

- Stage 1 – SEC implements its pilot first
- Stage 2 – Month 4 (3 months after US Pilot) – Commence CSA pilot on interlisteds
- Stage 3 – Month 7 (6 months after US Pilot) – Incorporate non-interlisteds

This approach would allow for an initial assessment of any material negative impact arising from the US Pilot before putting Canadian markets at risk. We do not need to be the SEC's 'canary in a coal mine' by foolishly proceeding first, as appears to be inherently implied by the academic's proposed approach to first proceed with non-interlisteds first.

The SEC in its final rule to implement the Pilot has contemplated and accommodated for a delay period if a Canadian pilot were to begin after the US Pilot. The SEC's final rule indicates that if the Canadian pilot is delayed, all interlisted securities will be placed in a control group until the Canadian pilot starts, at which point the SEC will mirror the Canadian no-rebate bucket and control group split.[15]

Implementing interlisteds before non-interlisteds will help to minimize any concerns from the CSA's regulatory partners at the SEC about the impact of a longer delay on the overall duration of the US Pilot if non-interlisteds were instead to be rolled-out in Stage 2. The fact that interlisteds are relatively insignificant as a proportion of overall trading in the US (as compared to their significance in Canada) may be why the SEC has stated they will accommodate a delay.

A three-month gap between Stage 2 and Stage 3 should presumably be sufficient to address the 'unexpected market-wide event' concern. A longer gap may only serve to lengthen the overall duration of the Proposed Pilot, and should therefore be avoided.

[15] See footnote 126 at page 40 of the SEC's final rule at: https://www.sec.gov/rules/final/2018/34-84875.pdf.

Question 3: *Several Canadian marketplaces offer formal programs that reward market makers with enhanced rebates in return for liquidity provision obligations. On the one hand, such programs may benefit liquidity. One the other hand, one of the primary objectives of the Pilot is to understand if rebates cause excessive intermediation. In your opinion, should exchanges be allowed to continue using rebates or similar arrangements for market making programs during the Pilot? Do you believe any constraints on such programs during the Pilot to be appropriate?*

Firstly, it is important to acknowledge the distinctions between a *bona fide* exchange Market Maker program vs. a liquidity provision program. The primary objective of an exchange Market Maker program like that operated by TSX is to facilitate a healthy and vibrant secondary trading environment to support TSX's issuers and the general capital raising process. In contrast, a liquidity provision program is typically intended to drive trading volumes in support of the offering marketplace's revenue and/or market share goals. For clarity, when we refer to liquidity provision programs, we are including any volume or quoting driven incentive program offered by either an exchange or ATS on securities listed by another exchange.

This primary objective of an exchange Market Making program is exemplified through the role played by TSX's Market Makers - the primary role being to augment liquidity and ensure that a competitive two-sided market exists on TSX during continuous trading hours. Carrying out this primary role is critical for facilitating secondary trading and price formation and contributes to market stability. Ultimately, the role that TSX Market Makers play is one that supports issuers and the general capital raising process and thereby helps to fuel the Canadian economy.

In addition, TSX Market Makers are also responsible for maintaining presence during the market opening, providing support for the MGF Facility, filling odd lots at the Protected NBBO, and reporting unusual behaviour to the appropriate regulatory authorities.

A Market Maker must meet specific quoting and liquidity obligations in carrying out its responsibilities (e.g., spread goals), and is required to take on a number of less liquid 'Tier B' stock for each highly liquid stock 'Tier A' stock that it is awarded. Meeting its obligations, and in particular for the less liquid 'Tier B' stock, can impose meaningful risk and cost on a TSX Market Maker.

To help offset these costs and ensure that TSX is able to continue to assign a Market Maker to every equity issuance, TSX must provide means for Market Makers to be compensated for their efforts. One such mechanism is the ability to pay rebates on trading fees.

As might be expected to result from obligations that are focused on ensuring quoted liquidity, a review of traded volume by TSX Market Makers indicates that TSX Market Maker volume is primarily passive. An elimination of rebates would therefore impose additional costs on TSX Market Makers that would not be offset by a corresponding decrease in active fees, even if those active fees are also reduced to zero.

This would have consequences in terms of a Market Maker's willingness and ability to meet their existing quoting and trading obligations, which in turn could negatively impact liquidity and spreads for all but the most-liquid securities. We expect this could arise irrespective of current obligations to the extent that the loss of rebates causes Market Makers to return their symbols for rebidding, with the outcome being rebids for quoting levels that are less competitive than current levels, or worse, the exit of Market Makers from the market and the closure of smaller dealer firms dependant on such business. In fact, the integrity and continued viability of the TSX Market Making program would be severely compromised in the absence of appropriate compensation and incentives from the TSX.

To avoid these negative outcomes, allowances need to be made to permit exchanges the ability to continue to pay passive rebates to Market Makers for trading in the exchange's listed securities. We do not believe it is necessary (or even appropriate) to make similar allowances for any liquidity provision program operated by an exchange on a competing exchange's listed securities (even if labelled as a 'market making program').

In the absence of the ability to pay rebates to Market Makers, accommodations should be made to allow exchanges to continue to compensate Market Makers for carrying out their obligations. The following are examples of alternative mechanisms that we suggest could be permitted, with the flexibility to tie these to a TSX Market Maker's activity in meeting its quoting and trading obligations:

- Discounts on active fees
- Increased fixed credits
- Discounts on non-trading services provided to Market Makers, such as data, connectivity, co-location, etc.

Question 6: *We propose a number of market quality metrics. Do you believe that we should consider additional metrics? If so, please outline these metrics and provide supporting data and analysis, if available, to demonstrate their empirical importance.*

Please refer to our comments in Section 3 of Appendix A which highlight shortcomings with the study design arising from a lack of clear links having been established between the proposed metrics and the identified areas of concern. In that section we have raised questions that should highlight the types of additional information that is likely necessary. As an example, any approach will need to have an understanding of a dealer's / trade desk's routing and posting logic, cost structure and best execution policies in order to effectively assess the extent to which any change (or lack of change) in routing or posting logic is related to the effect of rebates on reducing the conflicts of interest that are presumed by the RFC to be currently unmanageable, or whether the change (or lack of change) is simply a reaction of existing routing and posting logic to a shift in market dynamics precipitated by the rebate ban or some other factor.

Question 7: *We have had extensive discussions with a number of market participants on whether to include exchange-traded products (ETPs) in the Pilot, and some participants suggest that such an inclusion is warranted. Nevertheless, others point out that trading characteristics of ETPs are substantially different from those of corporate equities and including ETPs will present significant challenges in the matching stage and will likely confound the results in the analysis stage.*

These participants and our own research identify the following concerns:

- *most liquidity in ETPs is determined and provided by contracted market makers, and the ETP creation/redemption process represents its own source of liquidity;*
- *matching characteristics that we propose to use for corporate equities do not have the same meaning for ETPs. For instance, ETP fund size is not a relevant*

metric, and ETP trading volume is usually not correlated with quoting activity or liquidity;

- *spillover effects of two types may confound the results. First, liquidity in ETPs relates to liquidity of the underlying basket of securities, and if the basket is significantly affected by the Pilot, the ETP will be affected too. Second, ETPs that follow the same baskets may be viewed not only as good matches, but also as substitutes for investment, hedging, and trading purposes. If one of them is selected to be treated, and the other is not, market participants may move between products, potentially confounding the results of the Pilot.*

The above-mentioned concerns make finding matched ETP pairs a uniquely challenging task. To the best of our knowledge, there is no established procedure for matching ETPs to study their trading costs.

As such, in relation to ETP inclusion, we ask that market participants consider the following questions: Given the challenges that ETP matching presents, can the goals of the Pilot be achieved without including ETPs in the sample? If ETP inclusion is important, can you propose a way to construct a matched sample that addresses the concerns identified above?

Excluding ETPs is necessary for the reasons identified by the hired academics above and the additional reasons outlined below:

- The spillover effects identified above also present competitive issues for ETP issuers listing their product on TSX, whereby the attractiveness of an ETP in the 'no rebate' bucket may be reduced relative to a similarly constituted and competing ETP placed in the control bucket. This raises questions of fairness for ETP issuers who operate in a highly competitive environment where much focus is placed on attracting inflows to their product.
- The combined impact of a reduction on rebates for both ETFs and their underlyings (where the underlyings are equities subject to the proposed ban on rebates) may be ETF spreads that are even wider than if the rebate ban was to be applied only to the ETF's underlying securities.
- There are not enough ETFs to study based on the liquidity thresholds established by the hired academics. Based on a review of trading activity in TSX-listed ETFs over the period of November to January,[16] there are only a handful of TSX-listed ETFs within each of the 'medium-liquid' and 'highly-liquid' buckets (approximately 5 - 6 ETFs in each of those two buckets) on which to even conduct a study, and that assumes that it is even possible to pair off those 5 - 6 ETFs with each other for each bucket.[17] Inclusion of such a low number of ETFs presents a high risk of producing the "statistical estimation problems" that the academics suggested would arise for a test bucket containing even as many as 25-30 symbols,[18] thereby leading to inconclusive results. Even if their inclusion yielded conclusive results as to impact for the literal handful of treated ETFs, the academics and regulators would be hard pressed to conclude that similar observations could be expected across the 500+ ETFs that comprise the remaining ETF universe. The limited number of

[16] Total Canadian market-wide trading, no exclusions.

[17] These 5 – 6 ETFs in each liquidity bucket drop to a combined total of 6 ETFs across the two buckets (5 'highly-liquid', and only 1 'medium-liquid') if odd lots are excluded from the calculation of average daily value and number of trades.

[18] See page 24 of the RFC.

ETFs in each of those two buckets also represents approximately 75% of the market-wide value and volume traded over that period in TSX-listed ETFs. The risks of inclusion of those ETFs in the pilot both in terms of risks to spreads and liquidity as well as in terms of the spillover and related competitive risks are therefore significantly exacerbated – there is simply too much risk to be spread across a very limited number of symbols.

On the basis of the above, we strongly caution against including ETPs in the pilot. This is a clear case where the approach of instead letting the SEC study the effect on ETPs through their own pilot (and taking the opportunity to learn and observe from the US Pilot before taking any action ourselves) is not only appropriate, it is also necessary.

If the decision is instead made to proceed with the Proposed Pilot as currently designed and for ETPs to be included, then we suggest that the addition of ETPs be made at Stage 3 of our proposed staggered approach (see our response to RFC Question #2 in this Appendix), or even at a subsequent Stage 4. This will provide plenty of opportunity to assess the impacts of the US Pilot on ETPs, as well as the effects of the rebate ban on Canadian markets before assuming this elevated level of risk.

Appendix C

Comments on Draft Order

The following represents our comments on the Draft Order.

a) Implied restriction on marketplace changes for the duration of the Proposed Pilot

Section 2 of the Draft Order contains a proposed requirement for a marketplace to file submissions with any proposed change to its operations that satisfy the OSC that the proposed marketplace change will not "negatively impact the Objective of the Pilot". This "Objective" of the Pilot in the Draft Order is simply stated as being "to gain a better understanding of the effects of the prohibition of rebate payments by Canadian marketplaces".

The RFC contains additional language about the purpose and intent of the requirement. It suggests that any marketplace change ranging from "differentiated fees" to "bulk discounts" and "new order types" will potentially be viewed as "workarounds for rebate prohibitions" which could be seen as "undermining the Pilot". It is also stated that the possible effects of such changes "will be evaluated by the CSA prior to their approval, with the focus on preserving the scientific integrity of the Pilot."

This raises significant concerns relating to the level of discretion afforded to the OSC to deny marketplace changes. Based on our experience with the regulatory review and approval process for marketplace changes, this will restrict every marketplace from introducing changes that are responsive to customer needs and necessary for business and competitive purposes.

We also question the reasonableness of trying to establish a no-change environment within which to conduct the Proposed Pilot. A no-change environment is not reflective of a normal market environment, presenting the risk that we may not be able to rely on observations from the study to inform what might happen under a permanent rebate ban. To mitigate these issues and concerns (elaborated on further below), the requirement must be removed from the Draft Order.

<u>Marketplaces should not be precluded from the ability to innovate, compete, and adapt to market conditions so long as they are operating within the parameters of the Proposed Pilot</u> (i.e., so long as they comply with any restrictions regarding the payment of rebates.) We expect that it was on this basis that the SEC chose not to impose any such requirements or restrictions on affected US marketplaces for the US Pilot.[19]

Unreasonable level of discretion to deny marketplace changes

There are no indications as to how the OSC (in concert with the rest of the CSA) will make its assessment of whether a marketplace change will "negatively impact the Objective of the Pilot", nor are there clear indications as to the standards to which a marketplace's submissions will be held. In short, the only guidance provided to this point is that marketplace changes must not

[19] See second paragraph at page 168 of SEC final rules at https://www.sec.gov/rules/final/2018/34-84875.pdf which states:

> *Exchanges will continue to be permitted to have varying fees within each Test Group, and will be permitted to change their fees at their discretion, subject to the proposed rule change filing requirements of Section 19 of the Exchange Act, during the Pilot for securities within each Test Group, so long as they comply with the conditions applicable to that Test Group.*

negatively impact the ability to understand the effects of a rebate ban, and that any change will be evaluated with a focus on preserving the scientific integrity of the Proposed Pilot.

Our first concern is how the CSA will make an assessment as to whether the 'scientific integrity' of the Proposed Pilot is maintained - making these types of assessments is not in the normal course for the CSA. Further, there are concerns as to potential bias in the assessment - both the CSA and the hired academics will be incented to default to the safest option wherever a potential impact to the study is conceivable in order to preserve the cost and efforts put into the pilot.

We are also concerned because many changes to marketplace fees and trading functionality could alter behaviours and the distribution of orders and trades amongst marketplaces, and thereby affect market dynamics in a way that has the potential to obscure the study results. In fact, it should be expected that any change to fees or fee models might shift trading activity (whether liquidity provision, liquidity taking, or both) and market share from one or more venues to the marketplace making the change. In many cases, this is the primary objective of a marketplace fee change. A similar objective also often underlies the introduction of new order types or changes to enhance trading functionality.

Considering all of this, we expect that most proposed changes to marketplace fees and trading functionality will be denied – it will often be easier for the OSC to deny a change because of the potential for impact than to allow the change to go ahead on the basis of an argument by a marketplace on why that potential for impact is minimal. We do not think that preventing marketplaces from being able to continue to innovate and respond to customer needs, and from being able to compete, is the intent. Nor do we think it is reasonable. We also do not think that it will be possible for sufficient transparency to be provided as to the standards against which the OSC will decide whether a proposed marketplace change will have a negative impact for the study.

To address these issues, the requirement must be removed from the Draft Order.

Fairness vis-à-vis other market participants

Marketplaces are not the only source of these potential changes – vendors, dealers and their customers are also potential sources. Examples of changes or events involving these other participants that could affect the study results include:

- Implementation of new routing strategies by vendors or dealers intended solely to better leverage broker preferencing opportunities
- Roll-out of new trading strategies employed by dealers or their customers that materially affect or alter the nature or distribution of liquidity
- The commencement of trading by a new electronic liquidity provider, whether a large established trading client not currently trading in Canada or a dealer prop desk, that materially affects or alters the nature of distribution of liquidity
- The entry or exit of an electronic liquidity provider for reasons unrelated to the rebate pilot
- The effect of a merger between two significant trading entities (e.g., brokers, proprietary trading firms) that results in a consolidation of strategies or changes to their businesses that materially affects competition between brokers / trading firms
- the introduction by IIROC or the CSA of new rules or policies, or changes thereto, that impact a participant's capital, risk or approach to trading (including routing behaviours)

It is neither fair nor appropriate to attempt to limit a marketplace's ability to make changes to its operations without applying similar limitations on others where a similar risk could arise. It places marketplaces at a disadvantage in terms of their ability to continue to introduce enhancements to functionality in response to customer demand or to otherwise innovate.

As imposing similar requirements on other market participants would stretch or exceed regulatory authority, making it not feasible as an option, the most appropriate course of action is to remove the requirement from the Draft Order.

b) Scope of requirement in Draft Order to file submissions for <u>any</u> change to Form 21-101F1/2

Notwithstanding our view as to the requirement for submissions being unreasonable and inappropriate, if the regulators are to impose this requirement on marketplaces, then its scope should be narrowed. As currently drafted, the proposed requirement would require the filing of submissions in connection with <u>any</u> change, no matter how remote the nexus to the rebate pilot – e.g., the requirement would, for example, necessitate a submission that a change in the list of officers of TMX Group disclosed in the Form 21-101 will have no impact on the Objective of the Pilot. The breadth of scope of the requirement is inconsistent with the stated intent in the RFC that it is meant to apply where a marketplace seeks "to implement either a fee or major market structure change throughout the implementation period of the Proposed Pilot". A narrower scope is both necessary and appropriate to reflect the intent.

Appendix D

Other Comments on Proposed Pilot

The following represents our other comments in connection with the Proposed Pilot.

a) Incentives in the form of discounts on trading fees

The RFC is focused on the banning of rebates, which is commonly understood to capture where a marketplace provides a rebate rather than charges a fee. We expect that discounts on trading fees would be permitted, so long as the discount did not result in the participant effectively being paid a rebate - i.e., discounts on trading fees would be permitted so long as any discount was limited to a reduction of the fee to zero.

b) Amount of time needed to effect changes to accommodate for the Proposed Pilot

There was no consideration given to the amount of time that might be needed by marketplaces, vendors, dealers and other participants to ensure readiness for the pilot. For example, vendors and dealers will likely need to implement more granular symbol-group routing tables. Dealers may wish to revisit algorithms that have posting destinations built in.

Marketplaces will also need time to prepare. For example, marketplaces will be required to first develop and then file fee changes. Based on past experience, at least 30 days before implementation is needed just to accommodate for the regulatory submission and approval process (note that changes might not be limited to fee level changes, and similar changes might be needed for TSXV fees for business purposes that are subject to review and approval processes in other jurisdictions). An additional allowance of 60 days prior to submission for approval is also needed to allow marketplaces sufficient time to design, consult on and obtain internal approvals for the fee and/or fee model changes that will be submitted. Therefore, just to accommodate fee changes, we suggest at least 90 days notice from the regulators would be needed.

In addition, TMX has identified that changes to its billing logic will be necessary to ensure that the treated securities are subject to different fees than would otherwise be applied. Implementation and quality assurance testing for changes to billing structure for both TSX and TSX Alpha that are limited solely to fee level changes have been estimated at 1.5 months with an additional 2 week buffer for unforeseen issues. More time would likely be needed if the fee change involves a change to the model itself (e.g., the introduction of fee discount incentives).

Based on the above, and subject to any additional issues raised by other commenters, we therefore suggest that advance notice of a minimum of 90 days, and ideally 120 days (for an uncertainty buffer), be provided between the issuance of any order to effect the Proposed Pilot and its implementation.

As additional justification for advance notice of at least 90 days being given, we note that it is typically required by the OSC for marketplaces to wait 90 days to implement a change post-approval where the change will impact participants - e.g., where changes to routing or algorithm logic may be needed.

c) Symmetrical pricing

We agree with the statement in the RFC that imposing symmetrical pricing would be overly prescriptive and would limit the ability of marketplaces to compete to attract orders. We do not agree with the statement made by the academics in the RFC that "symmetric 'take-take' fees are the only way to entirely eliminate potential conflicts of interest…"

For reasons similar to those we have raised in Section #1 of Appendix A, we are of the view that the imposition of symmetrical pricing would not eliminate the inherent conflicts of interest. Under symmetrical pricing, marketplaces may still implement the model at different price levels. So long as it is cheaper to take / provide liquidity on one venue vs. another, the potential conflict of interest whereby a dealer might be incented to choose the cheaper fee for itself vs. increased quality of execution for its client will persist.

It should not be inferred that we are suggesting that marketplaces should be required to both adopt symmetrical pricing and the same price levels. This would require an even more aggressive form of price control that is not justified in light of there being alternatives for addressing the potential conflict issue, which we have outlined in Section #2 of Appendix A.

d) Exclusion of securities priced under $1

We are supportive of the exclusion of securities priced under $1 for the reasons provided – i.e., that the majority of volume in these stocks trade on venues that offer symmetrical pricing for trades in securities priced under $1. These securities also tend to be among the least liquid of securities. As suggested by the academics, their inclusion would not yield statistically meaningful insights. There is therefore insufficient value from inclusion to offset the potential costs, burden and risk of inclusion.

e) Prohibition of rebate payments for intentional crosses

Footnote 15 on page 10 of the RFC indicates that the proposed rebate ban would include a ban on rebates for intentional crosses. We are wholly supportive of the inclusion of intentional crosses within the ban. In fact, we would be supportive of such a ban across all securities even without a pilot being undertaken as a ban should have absolutely no impact on market quality. The benefit of such a ban would be to eliminate the practice of some marketplaces to make misleading claims about the level of trading occurring on their market through the inclusion of these purchased intentional cross trades (which are trades that occur off-market and are subsequently printed to a marketplace, and not trades that actually occurred from an on-market match) in their published stats and marketing materials.

Virtu ITG Canada Corp.
The Exchange Tower
130 King Street West, Suite 1040
Toronto, ON, M5X 1B1

t:1.416.874.0900
f:1.416.874.0690
www.virtu.com

VIRTU FINANCIAL

March 1, 2019

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission, New Brunswick Superintendent of Securities,
Government of Prince Edward Island
Nova Scotia Securities Commission
Office of the Superintendent of Securities,
Service NL (Newfoundland and Labrador)
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Department of Justice, Government of Nunavut

The Secretary
Ontario Securities Commission
20 Queen Street West, 22nd Floor
Toronto, Ontario M5H 3S8
Fax: 416-593-2318
comments@osc.gov.on.ca

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, rue du Square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal (Québec) H4Z 1G3
Fax : 514-864-6381
consultation-en-cours@lautorite.qc.ca

Virtu ITG Canada response to the Trading Fee Rebate Pilot Study

Virtu ITG Canada Corp. would like to thank the Ontario Securities Commission ("OSC") for this opportunity to comment on proposed Trading Fee Rebate Pilot Study.

Our thoughts on these proposals, and all market structure matters, are largely influenced by the over-arching desire to foster a fair, competitive and healthy market, underpinned by a high level of transparency provided by Liquidity Providers. We applaud the approach of a data-driven pilot, with clearly defined goals, and metrics.

Answers to questions for the market participants

1. We propose to define a security as medium-liquid if it trades at least 50 times a day on average and more than $50,000 on average per trading day over the past month. Do you believe that this definition

is appropriate? If not, please provide an alternative definition and supporting data, if available, to illustrate which securities your definition captures.
The definition of medium liquidity, as stated, seems very low. Stocks that trade less than $50,000 CAD a day would typically be defined as illiquid in most developed markets. Having said that, our analyses using 2019 data suggests that this standard will remove ~ 62% of TSX listed names from the pilot. In the interest of ensuring a reasonable subset of stocks to study, we believe the definition should stand.

2. We propose to introduce the Pilot in two stages, with non-interlisted securities first, followed by interlisted securities. Do you believe that such staggered introduction will cause material problems for the statistical analysis and the results of the Pilot? If so, please describe your concerns in detail.

To the extent that the CSA can get the pilot approved and finalized, and give industry participants reasonable time to code and test changes for the pilot, we are in favour of the proposed timing. Should the staggered start require the regulators to reduce the lead time offered up to the street, we would be opposed to such move.

3. Several Canadian marketplaces offer formal programs that reward Liquidity Providers with enhanced rebates in return for liquidity provision obligations. On the one hand, such programs may benefit liquidity. One the other hand, one of the primary objectives of the Pilot is to understand if rebates cause excessive intermediation. In your opinion, should exchanges be allowed to continue using rebates or similar arrangements for market making programs during the Pilot? Do you believe any constraints on such programs during the Pilot to be appropriate?

We believe that this is the most interesting and difficult question put forth. The Canadian regulators have long desired to study maker taker pricing, but have held off out of concern that such a study, done alone, would harm the competitiveness of the Canadian market relative to the U.S. We applaud this stance, and believe that similar concerns should inform our answer on this issue.

The US Transaction Fee Pilot clearly contemplates exchanges being able to offer "non-rebate linked pricing to its registered market makers in consideration for meeting market quality metrics" for the no rebate bucket (bucket 2)[1]. We believe that the Canadian markets need to be afforded the ability to compete on an even footing with their US competitors. Marketplace participants benefit from marketplaces globally, and seek various sources of liquidity. The liquidity ecosystem is composed of: (1) retail and agency orders, (2) market makers; and (3) principal liquidity, all of whom enjoy symbiotic relationships that stitch together the marketplace fabric; one participant cannot survive alone without the other.
Consequently, we are of the view that Canadian marketplaces should be allowed to offer similar incentives for liquidity provision, which would support a healthy ecosystem. Such incentives should be allowed at all Canadian marketplaces, to ensure that primary listing venues don't derive an unwarranted monopoly on Liquidity Provider liquidity. The incentives offered to principal Liquidity Providers should be clearly linked to their quoting, and trading obligations, like the market making programs that NYSE offers to DMMs[2] and SLPs[3]. Regulators are wise to calculate and weigh the benefits to, and risks taken by, Liquidity Providers to ensure they are proportionally rewarded for their efforts. To mitigate any cross-border arbitrage, and to foster healthy competition, regulators would also want to ensure that Canadian marketplaces can compete with US marketplaces for liquidity.

[1] https://www.sec.gov/rules/final/2018/34-84875.pdf page 370, section (2)
[2] https://www.nyse.com/publicdocs/nyse/listing/fact_sheet_dmm.pdf
[3] https://www.nyse.com/publicdocs/nyse/listing/fact_sheet_slps.pdf

4. We propose to compute price impacts at the one- and five-second horizons. Do you believe that we should consider other horizons? If so, which ones?

While we agree there would be a benefit to compute price impact based on different time horizon segments, there might be greater utility computing the price impacts based on different order intent. For example, the price impact analysis should vary between orders that (1) exhaust the entire visible quote; (2) only consume a portion of the visible quote and don't change the quote; or (3) consume quotes in some variant, such as orders that target dark orders and don't move the quote. Such analysis could better inform the market about both the quality of liquidity offered by various venues, as well as the shifting nature of liquidity resulting from the pilot. We might then be able to answer questions such as whether the removal of rebates impact: (1) the liquidity profile of dark and lit marketplaces; (2) the refresh rates of quotes in lit marketplaces; (3) the overall liquidity profile of certain stocks; (4) spreads; (5) Best Execution for clients.

5. We propose to compute time-to-execution for limit orders posted at the CBBO prices or improving these prices. Do you believe that we should consider different price levels? If so, which ones? Please provide supporting data and analysis, if available, to demonstrate the empirical importance of order postings at other levels.

We believe that time to execution should only be computed against orders that are at, or improve, the CBBO on entry, or after the quote moves such that an order is now at the CBBO. To understand why, let's consider the recent SEC rules for institutional 606 reports. These rules require dealers to report the "average time between order entry and execution or cancellation for orders providing liquidity"[4], regardless of whether the order is at the CBBO at time of sending. We believe this metric is flawed, as non-CBBO orders will muddy the results, and dealers could be incented to send fewer off market orders, in the pursuit of better results versus an imperfect metric. Such a behavioral change from the dealer community would likely result in less liquidity beyond the NBBO, greater quote volatility, and more fragile markets.

Orders are placed away from the CBBO for a variety of reasons: (1) price-limited orders; (2) opportunistic orders looking to capture the benefits of contra short term aggressive orders; (3) orders informed by some micro-term alpha signal. Regardless of the reason, orders that are placed away from the CBBO can have very different intentions than those at, or improving, the CBBO on entry. Thus, it would distort results to include orders placed away from the CBBO. The goal of the study should be to determine the impact of rebates on liquidity, and broker conflicts for marketable, or near marketable orders. Thus, it would be logical to flag orders as marketable or non-marketable at the time when the order is submitted, and then measure how long it takes for non-marketable orders to become marketable.

6. We propose a number of market quality metrics. Do you believe that we should consider additional metrics? If so, please outline these metrics and provide supporting data and analysis, if available, to demonstrate their empirical importance.

As highlighted in our answer to Question 4, we believe that understanding the impact of the pilot on different types of orders would be most useful. While understanding the aggregate impact of the study is important, it will be equally important to appreciate how different types of participants and orders are impacted. For example, if the study were to appear slightly beneficial in aggregate, but somehow negatively impact the quality of the opening or closing auctions, it would be important to know this.

[4] https://www.sec.gov/rules/final/2018/34-84528.pdf page 108

Ideally, we would have greater clarity on how the study impacts liquidity taking, liquidity supplying, lit, dark and auction trades.

While not specifically mentioned in the proposal, or related questions, we do think the study provides an excellent opportunity for Canada to consider the adoption of US style 606 reports.

Traditionally the US market has mandated retail brokers to provide 606 reports, to demonstrate the execution quality of “held” orders. These reports have historically been used by US retail dealers to demonstrate fill quality, and allow retail clients to better compare the various dealers. Such reports have been deemed less necessary in Canada, due to the lack of bilateral off-exchange trading of retail flow. However, in recent years some Canadian dealers have managed to replicate US style “wholesaling” using on exchange tools. As such, we believe the evolving nature of retail execution warrants a fresh look at providing execution metrics for non-discretionary order flow.

Recently, the SEC has issued new rules for 606 reports of “not held” orders, more commonly used by institutional clients. These reports are designed to highlight any broker routing conflicts. As such conflicts are the single biggest driver of the Transaction Fee Pilots, on both sides of the border, it makes sense to improve broker routing transparency in line with the pilot. As most dealers will be building out reporting for US flow, the cost of building similar reports for Canadian order routing should be minimal.

7. We have had extensive discussions with a number of market participants on whether to include exchange-traded products (ETPs) in the Pilot, and some participants suggest that such an inclusion is warranted. Nevertheless, others point out that trading characteristics of ETPs are substantially different from those of corporate equities and including ETPs will present significant challenges in the matching stage and will likely confound the results in the analysis stage.
These participants and our own research identify the following concerns:

• most liquidity in ETPs is determined and provided by contracted Liquidity Providers, and the ETP creation/redemption process represents its own source of liquidity;

• matching characteristics that we propose to use for corporate equities do not have the same meaning for ETPs. For instance, ETP fund size is not a relevant metric, and ETP trading volume is usually not correlated with quoting activity or liquidity;

• spillover effects of two types may confound the results. First, liquidity in ETPs relates to liquidity of the underlying basket of securities, and if the basket is significantly affected by the Pilot, the ETP will be affected too. Second, ETPs that follow the same baskets may be viewed not only as good matches, but also as substitutes for investment, hedging, and trading purposes. If one of them is selected to be treated, and the other is not, market participants may move between products, potentially confounding the results of the Pilot.

The above-mentioned concerns make finding matched ETP pairs a uniquely challenging task. To the best of our knowledge, there is no established procedure for matching ETPs to study their trading costs.

As such, in relation to ETP inclusion, we ask that market participants consider the following questions: Given the challenges that ETP matching presents, can the goals of the Pilot be achieved without *including ETPs in the sample? If ETP inclusion is important, can you propose a way to construct a matched sample that addresses the concerns identified above?*

ETPs trade very differently from corporate issues. As a derivative, the pricing of each ETP is closely related to the pricing of the underlying, as determined by an active market making community. We believe it is more likely that Liquidity Providers are using the rebates to inform their net pricing. This would explain why we often see multiple participants bidding for an ETP at a price slightly greater than NAV, or offering slightly below NAV. Given this difference in trading behaviour, and sensitivity to Liquidity Provider pricing, we would suggest that ETPs either be removed from the pilot, or considered separately when computing the results.

Aggregating metrics for corporate issues alongside ETPs, may give a result that is suboptimal for both asset types.

In conclusion, we thank the CSA for allowing us to comment on the proposed pilot. We would be happy to address any questions you may have.

Sincerely,

Doug Clark
Virtu ITG Canada Corp.

VIRTU FINANCIAL

BY ELECTRONIC MAIL: comments@osc.gov.on.ca, consultation-en-cours@lautorite.qc.ca

March 1, 2019

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission, New Brunswick
Superintendent of Securities, Government of Prince Edward Island
Nova Scotia Securities Commission
Office of the Superintendent of Securities, Service NL (Newfoundland and Labrador)
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Department of Justice, Government of Nunavut

The Secretary
Ontario Securities Commission
20 Queen Street West, 22nd Floor
Toronto, Ontario M5H 3S8

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montreal (Québec) H4Z 1G3

Dear Sirs / Madames:

Re: CSA Staff Notice and Request for Comment 23-323 *Trading Fee Rebate Pilot Study* (the "Proposed Pilot Study")

Fidelity (Canada) Asset Management ULC ("Fidelity") appreciates the opportunity to provide comments to the Canadian Securities Administrators ("CSA") on the Proposed Pilot Study that would apply temporary pricing restrictions on marketplace transaction fees applicable to trading in certain securities.

For over 70 years, including 31 years in Canada, Fidelity has put investors first by working hard to help them achieve their financial goals. We recognize that the CSA is also committed to improving outcomes for investors and we are pleased to work collaboratively with the CSA toward our shared commitment.

GENERAL COMMENTS

Fidelity supports the CSA's continuing effort to evaluate the marketplace, and to promote market integrity and bolster investor confidence. We believe that the Canadian equity markets are fundamentally strong and that investors have benefitted from numerous advances in recent years. Technology and a competitive marketplace of multiple trading centers have led to improved cost, liquidity, speed and product innovation.

The Proposed Pilot Study is designed to facilitate analysis of the impacts that transaction-based fees and rebates, and changes to those fees and rebates, may have on order routing behavior, execution quality, and more generally, on market quality. The United States Securities Exchange Commission ("SEC") and the CSA seem to anticipate that the data generated by the Proposed Pilot Study will generate positive evaluation results to potentially reduce or terminate rebate fees. We think the coordination with the SEC on inter-listed stocks and on the duration of the study is important.

While Fidelity commends the CSA for advancing this discussion, we have concerns that the Proposed Pilot Study may have unintended consequences within the Canadian capital markets.

SPECIFIC COMMENTS

Pilot Evaluation

Fidelity generally agrees with the CSA's proposed metrics for measuring market and execution quality in the Proposed Pilot Study – i.e., data measuring effective spread, quoted spread, slippage, displayed liquidity and depth of book. We believe that the CSA's definition of a "medium liquid security" is appropriate; the lower grouping will, in our view, capture a unique subset of Canadian equities with their own performance, broker routing and intermediation profile.

We would, however, encourage the CSA to provide additional guidance on what it considers a "good outcome" would look like in terms of liquidity, volume, ability to transact in the market and trading behaviour. Fidelity believes that clearly defined measurements of market and execution quality at the start of the Proposed Pilot Study will help avoid post hoc justifications and arguments about success and failure. We would also appreciate clarification on how the CSA intends to deal with the potential of current non inter-listed securities found in the sample to list in the United States after the commencement of the Proposed Pilot Study.

Sample Size

Fidelity supports the Proposed Pilot Study's stratified random sampling by market capitalization, share price and liquidity. However, we question whether a statistically relevant sample size may be achieved with fewer stocks. The CSA's Proposed Pilot Study seeks to have a total of 140-180 dually listed stocks, and 280-360 non inter-listed stocks in the test groups[1]. In the United States, liquidity was 16 times greater and the total market capitalization was 20 times greater than Canada in 2018[2]. In addition, trading costs in Canada tend to be more expensive than the U.S. and there are a greater number of marketplaces in the United States compared to that in Canada. For these reasons, our primary concern is that the Proposed Pilot Study may impact liquidity in certain Canadian securities extensively, which could create an unfair advantage to large institutional participants.

We believe that constraints on Canadian marketplaces that offer formal programs to enhance rebates during the Proposed Pilot Study may be appropriate. If the stated concerns are increased segmentation, increased intermediation and conflicts of interest for routing decisions, constraints have to be placed on market-making programs, as they can contribute to these concerns. However, removing all the economic benefits that market makers gain through these programs will, in our view, limit the liquidity that they provide and could potentially lessen the benefit that the obligations of market-making deliver to retail flow. Retail clients are the primary beneficiary of market-making programs as they offer minimum fill sizes and liquidity for odd lots. We think there should be support for incentives that encourage market makers to continue to provide liquidity and reward performance, but that are not volume based.

Access Fees

Fidelity believes that exchange behaviour on access fees must also be closely monitored to ensure efficiency and to discourage manipulative practices. We note that in the current marketplace, some exchanges compete with each other on price in the form of rebates. If these exchanges cannot offer rebates or linked pricing in the test group, the impact could be severe. There are also concerns that not all vendors would adjust routing behavior to reflect differences in fees necessary to make systems compliant on a stock-by-stock basis. This is essential and we believe that all participants should be aware of and be diligent in ensuring vendor compliance with this Proposed Pilot Study.

The CSA asked for feedback on whether to include ETFs and how to package two “like ETFs” in differing buckets. Fidelity agrees that ETFs should be included in the Proposed Pilot Study, as the liquidity of these products may also be impacted by access fees. We believe that “like ETFs” need to stay in the same bucket – e.g., ETFs that track the same group of stocks should be placed in the same test group. If similarly situated ETFs are not grouped together, the analysis may place different price levers on virtually the same product, which is not equitable from a competitive business perspective.

Privacy Concerns

[1] The CSA Proposed: (i) 70-90 inter-listed securities (50-60 highly liquid; and 20-30 medium liquid) with equal number of matches; and (ii) 140-180 non-inter-listed securities (60-80 highly liquid and 80-100 medium liquid) with equal number of matches.

[2] Source: Bloomberg

Fidelity Investments Canada ULC 483 Bay Street, Suite 300 Toronto, Ontario M5G 2N7 Tel. 416-307-5300 Toll-free 1-800-387-0074

The Proposed Pilot Study would require exchanges to prepare a publicly downloadable file, often containing granular, sensitive and aggregated broker-dealer order routing information for all securities included in the Proposed Pilot Study. In preparing these datasets, the exchanges would be required to anonymize information relating to the identity of individual broker-dealers before making the order routing datasets publicly available. In order to track and aggregate the activity of particular broker-dealers across multiple exchanges, each exchange is proposed to use the same anonymized code provided by the CSA, and based off the central registration depository identifier, to classify a specific broker-dealer.

We are concerned that the identity of specific broker-dealers may be reverse engineered based on public data provided for the Proposed Pilot Study – e.g., it is proposed to separately publish held orders and not-held orders in publicly available order routing data. Given the large percentage of held orders that represent retail order flow, we believe that it could be easy to identify the largest retail broker-dealers from publicly available data. For this reason, we suggest that the CSA should eliminate publicly available data on held and not-held orders and to extend the dissemination period for this data to be made publicly available from 30 days to 120 days. Moreover, to help ensure that specific broker-dealers are not identified as associated with a particular data set, we suggest that the CSA should restrict the sharing of the anonymized code for each broker-dealer with only those exchange employees who are directly responsible for publishing the data.

Execution Quality

If the results of the Proposed Pilot Study indicate that market and execution quality measures suffer in a high rebate world and on a high rebate marketplace, then a natural extension should be drawn towards those that focus their routing behavior to seek these rebates. Managing execution quality is a task brokers put various levels of focus on and, as you know, best execution is a principles-based rule in Canada. Unlike the United States, there are no standard measures in Canada that brokers publish. With differing business lines wrapped-up under one broker, deciphering broker routing behavior becomes very hard. These differing business lines may effectively utilize rebate marketplaces while managing any potential conflicts and preserve execution quality. If the combined aim is to examine broker conflicts and execution quality, achieving that goal could be difficult.

CONCLUSION

Fidelity would be pleased to provide further information, participate in any direct outreach efforts the CSA undertakes, or respond to questions the CSA may have about our comments.

Sincerely,

Fidelity (Canada) Asset Management ULC

"Fidae Abbas"

Fidae Abbas
Chief Compliance Officer

c.c. Andrew Marchese, President
Sian Burgess, SVP, Fund Oversight, Fidelity Investments Canada ULC