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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
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Me Anne-Marie Beaudoin
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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.

Summary of TMX position on Proposed Pilot

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.

Other significant concerns

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.

Other comments and details

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,

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.

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[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

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[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.

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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

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[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 any 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 any 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.