ANNEX G

Local Matters (Ontario)

Cost-Benefit Analysis: Proposed Amendments to NI 23-101 and Proposed Changes to 23-101CP— Marketplace Trading Fee Caps

I. Background

a. Current regulatory framework and rationale for intervention

Trading fees charged by marketplaces are determined by a number of factors.

The regulatory framework, including caps on fees, is designed to ensure that marketplace trading fees are fair and reasonable, marketplaces are not taking advantage of regulatory requirements to charge unreasonably high fees, and all investors have fair and non-discriminatory access to displayed orders on all marketplaces.

Most marketplaces operate either a "maker-taker" or "taker-maker" fee model. Under a maker-taker model, a marketplace charges a fee to the active order taking liquidity from the order book and pays part of that fee as a rebate to the passive order providing liquidity to the order book. Under a taker-maker model, the passive order (i.e., resting orders providing liquidity on a marketplace) pays a fee and the active order (i.e., orders that take liquidity on the marketplace) receives the rebate. In either model, the difference between the fee and rebate is the net capture for the marketplace. If a marketplace charges a larger active (passive) fee, it can afford to offer a larger passive (active) rebate to attract more order flow.

The relationship between trading fees and trade-throughs

The purpose of a trading fee limitation is to help ensure fair access to displayed orders by establishing an outer limit on the cost of accessing such quotations, especially where there is a regulatory requirement that a dealer trade with an order on a particular marketplace, such as trade-through rules that prohibit executing a buy order at a higher price than is available on another protected marketplace, or a sell order at a lower price. Trading fee caps were designed in part to preclude individual marketplaces from raising their fees substantially in an attempt to take improper advantage of strengthened protection against trade-throughs.

Canada has had a form of trade-through regime in place for trading in exchange-traded securities for some time, although the scope of application and underlying principles have evolved. Originally, trade-through prohibitions were contained in exchange trading rules, and only protected that exchange's orders.² Later, the prohibition on trade-throughs was extended to all marketplaces with displayed orders. As more marketplaces competed in trading, concerns arose that investors, including retail investors, would perceive an unlevel playing field if their orders

¹ Under NI 23-101), "trade-through" means the execution of an order at a price that is,

⁽a) in the case of a purchase, higher than any protected offer, or

⁽b) in the case of a sale, lower than any protected bid.

² When it traded equities, the Montreal Exchange also prohibited trading through better-priced orders on the Toronto Stock Exchange.

were not executed despite showing better prices than prices at which trades were occurring. This could lead to a loss of confidence in the fairness and integrity of the market, the subsequent withdrawal of investors and/or liquidity from the market, and a decrease in the efficiency of the price discovery process and the markets in general. As a result, proposals to formalize the Order Protection Rule (**OPR**) were finalized in November 2009 and implemented in February 2011.

However, an unintended consequence of OPR was that some marketplace fees, including trading fees, were identified as impacted by the captive consumer issue. Regarding trading fees, marketplace participants raised specific concerns about the implications of OPR on their costs to execute tradeable order flow, given that OPR makes them captive consumers required to trade with the best-priced displayed orders, regardless of the level of fees charged by marketplaces displaying those orders.

Consequently, as a result of the CSA's review of OPR, steps were taken to help reduce the extent to which OPR acts as an unreasonable support for marketplaces and to mitigate the related cost issues borne by dealers and investors. The measures taken to cap trading fees were balanced against both the objectives of OPR and considerations related to the effect on competition and innovation. We note that the active trading fee caps apply to all visible marketplaces, even though unprotected visible marketplaces do not have captive consumers, because the CSA's view was that fee caps should be applied equally from a fairness perspective.³

The current fee caps

Subsection 6.6.1(2) of National Instrument 23-101 *Trading Rules* (**NI 23-101**) places a limit (or cap) on the active trading fees that can be charged by marketplaces for execution against displayed orders on the marketplace. Fee caps apply to continuous auction trading in equity securities and exchange-traded funds (**ETFs**). There are different cap levels for inter-listed and non-inter-listed securities.

Fee caps were originally set in 2016 at CAD 0.0030 per share for securities priced at CAD 1.00 or more, and CAD 0.0004 per share for securities priced below CAD 1.00. As described above, the fee caps only applied to maker-taker fee models, where marketplaces collect fees on active orders and pay rebates on passive orders. The \$0.0030 fee cap mirrored the fee cap then in place for U.S. marketplaces under Securities and Exchange Commission (SEC) Rule 612, which is a practical necessity given the interconnectedness of the U.S. and Canadian equity markets.

To address concerns that the \$0.0030 fee cap appeared high for non-inter-listed securities (whose trading prices are generally lower than inter-listed securities), in 2017, fees for non-inter-listed securities were capped at CAD 0.0017 per share for securities priced at CAD 1.00 or more. The non-inter-listed securities trading fee cap was set lower than the cap for inter-listed securities in dollar terms but not in percentage-point terms, since non-inter-listed securities had a lower volume-weighted average price than inter-listed securities. The existing fee caps were maintained for inter-listed securities and for all securities priced below CAD 1.00.

³ A dealer's best execution obligation may require it to access orders on unprotected visible markets.

⁴ CSA, CSA Notice and Request for Comment: Proposed Amendments to National Instrument 23-101 Trading Rules, April 7, 2016, https://www.osc.ca/en/securities-law/instruments-rules-policies/2/23-101/csa-notice-and-request-comment-proposed-amendments-national-instrument-23-101-trading-rules.

SEC market structure reform proposals

On September 18, 2024, the SEC finalized rules setting two minimum pricing increments, either USD 0.005 or USD 0.01, for the quoting and trading of National Market System (NMS) securities priced at or above USD 1.00 per share based on the time-weighted average quoted spread on U.S. marketplaces during an evaluation period. The minimum pricing increment is to be recalculated on a semi-annual basis (SEC Trading Increment Rule). The SEC Trading Increment Rule was to be effective on November 3, 2025 but is currently subject to an SEC order staying implementation pending the outcome of litigation.

In Canada, minimum pricing increments are set by the Canadian Investment Regulatory Organization (**CIRO**) through Universal Market Integrity Rule (**UMIR**) 6.1(1). The increments are currently set at one cent for securities trading at or above \$0.50 and \$0.005 for securities trading below \$0.50. In response to the SEC Trading Increment Rule, CIRO has proposed aligning the trading increments for inter-listed securities.

In light of the SEC Trading Increment Rule, the SEC has reduced the access fee⁵ caps in response to the proposed lower pricing increments. For securities priced USD 1.00 or more, the SEC has finalized amendments to reduce access fee cap levels to \$0.001/share for protected quotations and other best bids and offers in NMS stocks priced at \$1.00 or more regardless the tick size or pricing increment for the security. For securities priced less than USD 1.00, the SEC lowered the access fee cap of from 0.3% to 0.1% of the quotation price per share. Implementation of the reduced access fee cap is also stayed.

b. Proposed changes

The Canadian Securities Administrators (the **CSA**) propose to amend section 6.6.1 of NI 23-101 and section 6.4.1 of Companion Policy 23-101CP *Trading Rules* (**23-101CP**) to lower the active trading fee cap applicable to trading in inter-listed securities (the **Proposed Amendments**) from CAD 0.0030 to CAD 0.0010 for securities priced CAD 1.00 or more. For securities priced less than CAD 1.00, the CSA does not consider it necessary to reflect these in Canada since the current Canadian regime governing trading fee caps for securities priced less than \$1.00 is different than that of the U.S.⁶

The Proposed Amendments, if implemented, will continue to align Canadian trading fee caps with U.S. access fee caps for inter-listed securities. Maintaining this harmonization is necessary to maintain effective functioning of the capital markets, so that lower trading fees in the U.S. do not create an incentive for Canadian dealers to direct order flow in inter-listed securities to

⁵ In the U.S., trading fees are known as access fees.

⁶ In a <u>2014 CSA Notice</u>, we noted that: "when comparing current marketplace fee levels for included securities priced under \$1.00, they are in many cases already well below what would be charged if the U.S. cap was applied. In addition, we estimate that over the last three months of 2013, only approximately 6% of the total volume traded in securities priced below \$1.00 would have occurred at fee levels above the U.S. cap. Consequently, we questioned the rationale for implementing a similar cap at this time for trades in included securities priced under \$1.00. We also questioned the rationale for imposing a cap that is applied as a percentage of value traded given that current billing practices for the included securities are to charge at a per share or unit rate. We determined it would therefore be appropriate that if imposing a cap for included securities priced below \$1.00, it be set at the highest rate currently being charged for either of TSX or TSXV-listed securities- being 4 mills or \$0.0004 per share or unit traded."

lower-cost U.S. marketplaces. If the revised U.S. access fee cap is not implemented, the CSA will not proceed with the Proposed Amendments.

Additionally, if trading increments are reduced, marketplace fees must also be reduced so they do not distort pricing. OPR, in section 6.1 of NI 23-101, requires dealers to have policies and procedures reasonably designed to prevent trade-throughs (that is, trades occurring at inferior prices to those available on another protected marketplace). High trading fees can distort the analysis of whether a price on one market is in fact "better" than a price on another. The Proposed Amendments will continue to protect marketplace participants from marketplaces charging high trading fees for execution of orders that are required to be routed to the marketplace to comply with OPR. The recalibration of trading fee caps in light of the reduction Canadian minimum trading increments, contained in CIRO's UMIR 6.1(1), will also prevent potential market distortions that could occur when trading fees exceed half the minimum increment and represent an outsized proportion of the minimum quotation increment.

A reduction in the minimum pricing increment without reducing the trading fee caps could permit trading fees to become a higher percentage of the minimum pricing increment, which could potentially undermine price transparency and exacerbate the other concerns with makertaker fees.

Inverted (taker-maker) markets do not create the same risk of distortion because the fee is applied to the passive order. The fees the marketplaces charge for posting liquidity will not directly affect a dealer who needs to trade with an order on that marketplace to comply with OPR; the dealer will either receive a rebate or not be charged a fee. As liquidity providers are not required to post orders on any inverted market, we believe that competitive forces will limit the fees that can be charged.

The Proposed Amendments would balance several considerations, such as ensuring that the fees are competitive with U.S. markets while also seeking to preserve the ability of marketplaces to continue to operate and affording them continued flexibility to develop and utilize different fee structures, including the currently used maker-taker fee model. The proposed trading fee caps would allow marketplaces to largely maintain their current net capture rate (the difference between marketplace fees and rebates) and not impair their current fee models, though some fee models may change.

We also note that the Proposed Amendments could lower investor costs, including costs associated with trading fees and intermediation. With respect to the latter, concerns have been raised about excessive intermediation, which may occur in the trading of sufficiently liquid securities. In pursuit of earning rebates, high frequency traders and latency sensitive liquidity providers crowd out individual investors and long-term investors from being able to access liquidity passively.

⁷ A "protected market' is one that displays bids and offers publicly, allows those orders to be executed immediately and has a minimum market share. For exchanges, it also includes the exchange on which a security is listed.

⁸ The size of the fee would indirectly affect the size of any rebate.

II. Stakeholders affected by the proposed Instrument/Rule

Marketplaces

Marketplaces will need to revise their fee schedules, including fees charged on active orders and rebates paid to passive orders. There are 6 maker-taker marketplaces with active trading fees that exceed the proposed trading fee cap of CAD 0.001 for inter-listed securities.

There are approximately 200 inter-listed securities, of which roughly 180 are priced at CAD 1.00 or more. These inter-listed securities account for about 30% of total trading volume on Canadian marketplaces as of October 2023.⁹

Dealers

Revenues and costs for various dealers with different business models will be impacted by the changes to marketplace fees and rebates.

Investors

Investors are not expected to be directly impacted by the Proposed Amendments as dealers do not typically pass on trading fee charges or rebates directly to customers. Longer term, lower marketplace trading fees for active trades may contribute to continuing reductions in brokerage commissions.

III. Impact of the Proposed Amendments on each of the OSC mandate components

The OSC considers the impact of proposed rulemaking on the OSC's mandate to:

- provide protection to investors from unfair, improper or fraudulent practices,
- foster fair, efficient and competitive capital markets and confidence in the capital markets,
- foster capital formation, and
- contribute to the stability of the financial system and the reduction of systemic risk.

The Proposed Amendments may impact the competition, efficiency and capital formation components of the OSC's mandate.

Competition – The Proposed Amendments impact competition in the following ways:

• Competition between Canadian marketplaces – The Proposed Amendments may impact current marketplace business models. Marketplaces pay rebates to attract order flow to a particular platform and to partly compensate liquidity providers for the costs associated with market making. Given that rebates are funded in part by trading fees, the proposal to lower trading fees could lower the total amount of fees collected by some marketplaces, reducing the amount of rebates distributed by those marketplaces, possibly impacting their ability to attract order flow. The fee cap may decrease the opportunity for marketplaces to compete on trading fees but may encourage greater competition along other dimensions.

⁹ CBOE, Canadian Equity Exchanges Today, November 13, 2023, https://www.cboe.com/insights/posts/canadian-equities-exchanges-today/.

- Competitiveness with U.S. Markets Harmonizing the U.S. and Canadian requirements for inter-listed securities should, at a minimum, preserve the existing competitive position of Canadian marketplaces.
- Efficiency Price or market efficiency concerns the extent to which market prices reflect all available information. Operational efficiency concerns relate to transaction costs. ¹⁰ To the extent that the reduction in the tick size and accompanying reduction in the trading fee cap lower transaction costs, the Proposed Amendments could potentially improve both price and operational efficiency.
- Capital formation The Proposed Amendments facilitate capital formation by working to ensure orderly and liquid secondary markets.

IV. Anticipated costs and benefits

a. Benefits to stakeholders

Marketplaces

- Continued alignment with the U.S. marketplace fees and rebates to avoid potential loss of order flow to the United States.
- Lower fees will lead to lower rebates paid out by the marketplaces. Overall, the impact on the net marketplace fees is expected to be minor—as noted earlier, the proposed trading fee caps would allow marketplaces to largely maintain their current net capture rate and not impair their current fee models, though some fee models may change.

Dealers

• Lower trading fees will reduce costs on dealers who predominately execute active trades on behalf of investors. Table 1 estimates the impact of the proposed trading fee cap on total trading fees paid and rebates received by marketplace participants.

Table 1: Estimated total annual "maker-taker" marketplace trading fees and rebates under the current and proposed trading fee cap

	Current	Proposed
Shares traded, billions	54.2	54.2
Active fees, \$ millions	144.4	43.4
Active fees, mils per share	12-27	4-10
Passive rebates, \$ millions	122.8	21.8
Passive rebates, mils per share	6-24	0-6

¹⁰ Bauer, Gregory H., *A Taxonomy of Market Efficiency*. Bank of Canada Financial System Review, 2004, https://www.bankofcanada.ca/wp-content/uploads/2012/01/fsr-1204-bauer.pdf.

Note: These results are calculated based on 2023 trading volumes among other assumptions. ¹¹ Source: Bloomberg, OSC staff calculations.

- Lower trading fees and rebates will reduce the incentive to route orders to the best-priced marketplace with the lowest fees or highest rebates. This reduction in fee and rebate distortions should simplify order routing, resulting in operational efficiencies.
 - b. Costs to stakeholders

Marketplaces

1. Marketplace Compliance Costs

In May 2024, OSC staff sent a voluntary survey to 7 equity marketplace operators seeking input on the expected costs each marketplace would incur to implement the Proposed Amendments. Specifically, the survey asked equity marketplace operators to provide an estimate of the amount of time needed to perform the necessary work by firm function (Legal, Compliance and IT). The survey also captured whether the equity marketplace operator expected to use in-house or external resources to complete the work. The following section considers the incremental costs of the Proposed Amendments based on survey responses from 4 of the 7 marketplaces.

The estimated compliance costs are based on the following assumptions and observations:

- Marketplaces already have policies and procedures in place that govern the updating of
 existing marketplace fee schedules. As such we do not expect that the Proposed
 Amendments will have a material incremental impact on existing processes.
- We anticipate that marketplaces will incur minor one-time initial implementation costs but there will be no significant ongoing compliance costs associated with the Proposed Amendments.
- While we expect that the costs associated with the trading fee cap will be relatively minor, survey respondents noted that the costs to implement the change in the minimum pricing increment would be significantly higher. ¹² For the purposes of this cost-benefit analysis, we are primarily concerned with the costs associated with the proposed trading fee cap.

1. The proposed trading fee cap impacts US inter-listed securities priced at C\$1.00 per share or more (about 180 securities).

3. The current headline fees and rebates on impacted maker-taker marketplace is applied to 2023 trading volume for impacted US inter-listed securities to estimate current total fees collected and rebates paid. All trading is subject to the same top-level fees and rebates charged by each marketplace without discounts.

4. Under the proposed trading cap, the marketplace net capture rate remains unchanged. Trading fees and rebates on impacted marketplaces for inter-listed securities are lowered to a range of 4-10 mils (\$0.0004-\$0.001 per share) and 0-6 mils (C\$0.0000-\$0.0006 per share), respectively. The weighted-average trading fees and rebates are 8 mils and 4 mils, respectively, for the impacted marketplaces, which is closer to the top of the new range under the proposed trading fee cap.

¹¹ Table 1 assumptions calculated on a best-efforts basis:

^{2.} Impacted "maker-taker" marketplaces (6) have active trading fees above 10 mils.

¹² One respondent estimated that the costs to implement the change to the minimum pricing increment would be three times the estimated costs to implement the trading fee cap.

• Survey respondents indicated that they do not expect to incur any non-labour costs (e.g., significant investment in IT infrastructure) as a result of the Proposed Amendments.

Based on the survey responses, we estimate that the total number of compliance hours required to implement the Proposed Amendments range between 40 and 70 hours across the different firm functions. Survey respondents indicated that internal staff performing the work necessary to comply with the Proposed Amendments would include the following:

- Legal ¹³ Senior Legal Counsel; Assistant/Associate General Counsel; General Counsel
- Compliance ¹⁴ Senior Compliance Officer; Compliance Manager; Chief Compliance Officer
- Internal IT¹⁵ Product Manager, Software Engineer, Site Reliability Engineer

Table 2 sets out the estimated per firm and aggregate compliance costs associated with the Proposed Amendments.

Table 2: Estimated compliance costs associated with the proposed trading fee cap

	Low	High	
Total per firm labour costs	\$5,700	\$10,700	
Aggregate industry costs ¹⁶	\$39,900	\$74,900	

We note that the estimated compliance costs are small relative to marketplace annual revenue.

2. Marketplace Revenue Impact

In a maker-taker model, profit earned by marketplaces on each trade depends in part on the difference between the fees paid by liquidity takers and the rebates paid to liquidity providers. Table 1 (above) sets out estimates the impact of the proposed changes to trading fees and rebates for maker-taker marketplaces with active trading fees above the proposed trading fee cap. We anticipate that 6 marketplaces will need to lower fees as they currently charge above the proposed cap, and should consequently lower rebates.

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¹³ Hourly rates for legal staff are based on ZSA Counselwell's *2024 In-House Lawyer Salary Guide* (available here: https://www.zsa.ca/wp-content/uploads/2024/03/ZSA-Version-ZSA-X-Counselwell-In-House-Salary-Report-2.pdf)

¹⁴ Hourly rates for compliance staff are based on the Robert Half *2024 Canada Salary Guide* (available here: https://www.roberthalf.com/ca/en/insights/salary-guide)

¹⁵ Hourly rates for internal IT staff are based on the Robert Half 2024 Canada Salary Guide.

¹⁶ Assuming a total of 7 impacted marketplace operators.

Dealers and other liquidity providers

- Decreased revenues due to lower trading fee rebates; in particular, for firms specializing in liquidity provision and rebate capturing, such as HFT firms (Table 1).
- Need to reconfigure order routing strategies to account for changes to trading fees could impose a one-time cost.

V. Summary comparison of costs and benefits

We anticipate that marketplaces will incur minor costs to comply with the Proposed Amendments. We estimate that these costs will range between \$5,700 and \$10,700 per marketplace operator. We also anticipate that a reduction in the trading fee cap could lead to a \$101 million decrease in total fees collected by marketplaces (see Table 1). However, the net capture earned by marketplaces should not change significantly, as the decrease in passive rebates paid (\$101 million) should offset the decrease in fees collected. Although we are unable to quantify the impact of many of the benefits of the Proposed Amendments, we anticipate that these benefits might reasonably be expected to be proportionate to estimated costs to the extent that the Proposed Amendments preserve the relative competitive position of U.S. and Canadian marketplaces.

VI. Alternatives considered

Please refer to the section titled "Alternatives to the Proposed Amendments" in the accompanying CSA Notice and Request for Comment.