

IIAC Executive Summary
CSA Consultation Paper 21-403 – Access to Real-Time Market Data
(“Consultation Paper”)

The following provides an executive summary of the Consultation Paper issued by the Canadian Securities Administrators (CSA) on November 10, 2022 found [here](#).

The deadline for comments in writing to the CSA is February 10, 2023.

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1. Scope of Review & Summary of Findings

Information was requested from equity marketplace operators with at least an aggregate market share of one percent across the operator's trading venues, representing all trading venues other than those operated by Instinet Canada Cross Ltd. and Liquidnet Canada. Approximately 40 market participants of various sizes across a range of business lines were interviewed.

Staff's observations cover a 13-year period and outline observations between 2014 and 2019, if data for 2006 was unavailable for all marketplaces.

The results of Staff's fact-finding review can be found in Appendix A of the Consultation Paper. A summary is found [here](#).

2. CSA Staff Considerations, and Discussion and Analysis

a. Impact of Regulatory Requirements – Order Protection Rule and Best Execution

Staff Consideration 1: Amending OPR or best execution will not address the industry's concerns regarding access to RTMD

Most participants believe they must acquire RTMD from all marketplaces to comply with both OPR and best execution. They argue that the cost of doing so is high, whether RTMD is purchased directly from marketplaces or via a data vendor, and that the pass-through model of purchasing consolidated data products is similarly costly.

Staff interviews with market participants suggest:

- the introduction of the OPR threshold had no meaningful impact on the use and sourcing of consolidated RTMD by market participants. One factor may be that upfront costs to access the visible unprotected markets and consume their RTMD were already absorbed when the OPR threshold was introduced.
- participants' views were relatively consistent that maintaining access and trader visibility into the liquidity available on those venues was necessary to provide best execution to clients and avoid the potential need to defend their ability to achieve best execution.
- concerns regarding costs to access consolidated and non-consolidated RTMD in a multiple marketplace environment is a shared issue that also exists in jurisdictions where there is no OPR requirement.

b. Impact of Current Regulatory Approach for RTMD Fees

(i) Use of the Data Fee Methodology (DFM) to Regulate Professional User Fees

Staff Considerations 2 and 3:

- Retain external expertise to review the DFM, including the reference points used by Staff to allocate share of fees chargeable by marketplaces.



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- Consider whether to publish the calculated fee ranges in the interim.

The effectiveness of the DFM has decreased over time. Its main weakness is the lack of appropriate reference points.

While the DFM has helped manage the growth of professional user fees for some marketplaces, any cost savings by one marketplace due to the DFM were eventually offset by fee increases by others. This effect reflects challenges in the application of the DFM, particularly regarding the current baseline reference points used to establish pricing for consolidated data to allocate marketplace data fees. Some market participants expressed that transparency of the calculated DFM fee ranges would better explain changes in marketplace professional subscriber fees.

Staff are not aware of another jurisdiction outside of Canada that applies a DFM or similar formula to assess professional RTMD user fees. As a result, continued use of the DFM would require addressing its lack of appropriate reference points.

(ii) Regulation of Fees Other than Professional User Fees

Staff Consideration 4: Require marketplaces to publish proposed fee changes prior to approval, as part of the regulatory review and approval process, to enhance transparency of any RTMD-related fee proposals.

All non-professional subscriber fees relating to RTMD are subject to the review standards described in Schedule II. This approach has resulted in each facility introducing fees charged by others, at similar rates, which equates to, in some cases, a doubling or tripling of cumulative fees over an identified period. These types of fee changes are often not published for comment.

(iii) Regulatory Model for Consolidated RTMD

Staff Consideration 5: Leverage the current equity IP model or introduce a new data consolidation model to improve access to consolidated RTMD.

Market participants that access RTMD via the equity IP and some vendors are subject to a pass-through fee model. Staff notes the following in respect of the use of consolidated and non-consolidated RTMD feeds from the equity IP:

- 1) *Domestic dealers* – most rely on data and/or access vendors or consolidate RTMD fees themselves (**self-consolidate**) rather than rely on RTMD feeds from the equity IP;
- 2) *Access vendors* – need direct feeds to facilitate trading access, will also self-consolidate, but may use the equity IP to obtain certain non-consolidated RTMD feeds, usually from smaller marketplaces;
- 3) *Data vendors* – some use consolidated RTMD feeds from the equity IP to avoid the cost of developing and maintaining their own consolidated RTMD products;
- 4) Those accessing RTMD through the equity IP are more likely to purchase non-consolidated over consolidated feeds; and,
- 5) The cost and administration of the pass-through model was commonly cited as a factor impeding the take-up of consolidated RTMD feeds from the IP.

c. Increasing Costs for Accessing Consolidated RTMD



(i) Costs to Access Market Data Have Continued to Increase with Number of Marketplaces

Costs for RTMD access from marketplaces have cumulatively increased with the growing number of marketplaces as they have been launched. Marketplaces have introduced new fees aligned with new uses. Increased retail investor trading has also led to higher quote-usage, contributing to an increase in market participants' RTMD costs.

(ii) Effect of Competition on RTMD Fees

The prevalent view is that because RTMD is not interchangeable, there is a lack of competition to apply downward pressure on RTMD fees. Staff's fact-finding review demonstrated there has been no competitive response for market data fees from marketplaces already charging such fees as each new marketplace has begun operating or introducing similar data fees.

Staff did identify several circumstances over the years in which marketplaces reduced their fees due to market participant pressure or perceived competitive pressures. One example is TSXV's reduction of non-professional subscriber rates for RTMD in 2013.

(iii) Cost Implications for RTMD Made Available to Users

Staff Consideration 6: Options to address RTMD cost issues should sufficiently incentivize market participants to provide consolidated RTMD to clients where such provision is voluntary or, if provision of consolidated RTMD is to be mandated, should help offset the explicit cost impacts.

Staff believe that from a regulatory perspective, certain users would be better served by having access to consolidated RTMD to make informed decisions and that it is appropriate to take regulatory action to facilitate more cost-effective access to consolidated RTMD for these users.

Market participants indicated that, in certain circumstances, decisions regarding the level of access to RTMD made available to users depend on cost.

Retail clients, wealth advisors, retail investment advisors (**RIAs**) and many portfolio managers are often only provided with top-of-book / Level 1 RTMD from the listing markets due to the incremental costs of providing access to depth-of-book / Level 2 RTMD from all markets. These users often use quote information for indicative pricing purposes.

Access to top-of-book / Level 1 RTMD from listing markets only appears to be sufficient in most cases where users seek access to best price information, apart from TSX-listed exchange traded funds (**ETFs**). For ETFs, a higher probability of best price information is available on away markets, meaning that investors looking to obtain best price information would be better served by access to consolidated RTMD.

(iv) Other Notable Cost Effects – Administrative Burden

Staff Considerations 7 and 8:

- Standardizing key terms would likely reduce barriers to accessing consolidated RTMD.
- Regulatory options should focus on facilitating reasonably priced access to consolidated RTMD for all users.



Market participants raised concerns about the growing costs and inefficiency in managing and administering contracts with multiple marketplaces to access consolidated and non-consolidated RTMD. This stems from the increasing number of agreements required for each additional marketplace.

Participants were also concerned about the variation in the language of data access agreements and interpretation of similar language, as well as inconsistencies in definitions of key terms, application of data policies, and product bundles and packages, which are common between marketplaces and within the same marketplace.

3. CSA Proposed Initial Options

- (i) *Enhance transparency of any RTMD related fee proposals by requiring marketplaces, as part of the regulatory review and approval process, to publish proposed changes when they are filed for approval.***

This option involves implementing a requirement for marketplaces to publish for comment all proposed changes to RTMD fees as part of the review and approval process, replacing the current fee change process. The information required to be published would include how the proposed fee change complies with applicable regulatory requirements (i.e. the fair access requirements of NI 21-101 and Part 10 of the exchange recognition criteria).

Also required would be a description and analysis of the change that includes the current information submitted with a proposed fee change including:

- A description of the fee change being proposed,
- The expected implementation date,
- The rationale for the proposed fee change and any supporting analysis,
- A description of the methodology used to set the proposed fees,
- An analysis of stakeholder impact,
- An overview of any alternatives considered,
- Any analysis conducted to compare the proposed fee to fees charged for similar services by other marketplaces in Canada and abroad, and
- The costs of producing the product or service, where relevant.

Staff suggests a dedicated page on the applicable SRAs' or marketplace's website could be used to make such proposals publicly available for review. Approval would not be granted for at least 30 days or longer after the proposal has been made public to allow interested parties to provide feedback. Marketplaces would not be required to respond publicly to any feedback received.

- (ii) *Retain external assistance to review the DFM and its relevance in the context of domestic and international developments in equity markets. This should include an examination of reference points that could be used by Staff to allocate the share of fees chargeable by marketplaces under the DFM. The fee ranges assigned to each marketplace should be made transparent.***



This option involves engaging an external party to review the DFM to set appropriate reference points for the RTMD fees for consolidated data and addressing some of the other issues around the application of DFM.

This option also involves considering whether to publish fee ranges calculated under the DFM.

Applying the DFM across all current and future data fee categories beyond professional subscriber fees may not be feasible or desirable, particularly for categories less associated with data use where pre- and post-trade metrics used in the DFM may be less relevant. There may also be limitations in the ability to extend the DFM to additional fee categories, as reference points for each targeted fee category would need to be created, and currently there is a lack of standardization in RTMD key terms and definitions.

(iii) Create an industry group to help standardize key terms and definitions for access to and use of RTMD between marketplaces and market participants.

A new industry group under this option would include data experts from market participants that need to access and use RTMD, as well as marketplace staff with expertise administering RTMD contracts. Their goal would be to identify and standardize confusing key terms and definitions and maintain and audit such standardized terms and definitions in the context of access to the RTMD feeds.

Key terms include end-use categories, non-display use categories, internal versus external distribution, and real-time versus delayed data.

A potential next step could then be to mandate the adoption and implementation of standardized terms and definitions in relation to accessing consolidated and non-consolidated RTMD feeds access, which could lay the foundation for the proposed long-term options to improve access to consolidated RTMD.

This industry group could also develop use cases to ensure that users are charged RTMD access and use fees in a consistent manner.

4. CSA Proposed Longer-term Options

(i) Leverage the current IP model by introducing a TIP+ Model

Currently, the equity IP's functions are those of a technical information processor (**TIP**) – the equity IP serves a purely consolidation and distribution function. The IP collects, normalizes, consolidates and disseminates order and trade data to subscribers, while each marketplace sets the fees and contractual terms for use of the data under the pass-through model.

This option would mandate an enhanced TIP model (**TIP+ model**) with a single or multiple TIPs, that could address concerns about the cost of access to and use of consolidated RTMD by imposing a fee cap on marketplaces for order and trade data consumed through the consolidated products distributed by the TIP.

The CSA would establish:

- Fee caps:



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- Which may consider factors such as the extent to which consolidated TIP products offer a comparable degree of granularity and/or content to individual marketplace feeds, and how trade-offs between a consumer's needs and the cost of RTMD might reflect greater value of the consolidated data for end-users;
 - By setting reference prices for various uses of each consolidated TIP product and then using the DFM to determine the permitted fees that each marketplace may charge for the RTMD they contribute to the products.
- The manner of allocation to marketplaces of revenue from the TIP's consolidated products.

(ii) Introduce a new model for data consolidation through an Admin IP.

This option involves the creation of a new model for the distribution of consolidated RTMD. An Administrative IP (**Admin IP**) would be created to establish and manage the components of the new model (i.e. products, fees, revenue sharing). The CSA would mandate the creation of the Admin IP and set requirements for its governance, involving representation from both marketplaces and dealers. One or more TIPs could be responsible for the consolidated RTMD products as defined and required by the Admin IP.

1. Admin IP

Key responsibilities of the Admin IP would include,

- *product definition* of key consolidated RTMD products to be available for access and use by market participants, subject to any regulatory requirements or CSA guidance;
- *fee setting* for:
 - the consolidated RTMD products the TIPs distribute, including fees for access, use, distribution and connectivity;
 - fees associated with the collection, normalization, consolidation and distribution of consolidated products (if the Admin IP is charged with distribution of the products, rather than an independent TIP);
- *setting of standardized contractual terms* developed by the Admin IP through consultation with industry experts and subject to regulatory approval, that would govern access to, receipt, distribution and use of consolidated RTMD products from TIPs and, if applicable, the Admin IP;
- *revenue sharing* through a model the Admin IP designs and administers, subject to regulatory approval, to allocate net revenues from the sale of consolidated RTMD feeds to contributing marketplaces.

2. Single vs. Multiple TIPs under an Admin IP Model

Under this option, Staff is considering allowing for:

- a *single TIP* operated by either the Admin IP or an entity independent from the Admin IP, or
- creating a competitive TIP structure, under which there would be *multiple TIPs* to which marketplaces would be mandated to provide order and trade data exclusively to consolidate and distribute such data.



Allowing multiple TIPs may boost competition, and lower latency through innovation and potentially streamline contractual terms. It could also drive TIPs to provide customized services to users of consolidated market data and help reduce the “single-point-of-failure” risk from a single TIP ceasing operations.

The primary challenge is that there may not be sufficient incentive from a commercial perspective for multiple parties to create and act as TIPs. However, this risk also exists under the single TIP approach. In either case, the CSA may mandate that marketplaces contribute to the creation and viable operation of a TIP.

- **Staff also seek feedback on the questions identified in respect of each proposed option, listed in the Consultation Paper under each proposed option.**



Schedule I : Definitions / Background

Real-Time Market Data (RTMD)

RTMD: order and trade information that is distributed immediately after an order has been entered, amended, or cancelled or a trade has been executed.

Pre-trade RTMD: provides details of orders entered on a marketplace and generally identifies the price and volume associated with each order for a particular security.

Post-trade RTMD: provides details of a trade and generally includes the price at which the trade was executed and the volume for a particular security.

Consolidated RTMD: the consolidation of either pre- or post-trade RTMD across multiple marketplaces trading the same securities.

Distribution of RTMD

RTMD is distributed directly by marketplaces (via direct feeds) or indirectly by an information processor (IP) or third-party data vendors (whether at the individual marketplace level or on a consolidated basis).

The price and distribution format of consolidated RTMD delivered by third-party data vendors is not subject to regulatory review, as regulators do not have jurisdiction over vendors.

Categories of Feeds:

RTMD for orders placed and trades executed on a marketplace is solely produced by that marketplace, mainly via “feeds” that include pre- and post-trade information.

(1) Top-of-book (Level 1): information for each security, consisting of last sale, best bid and offer, aggregate volume available for purchase / sale at those prices;

(2) Depth-of-book (Level 2): price and volume information on all visible orders in the marketplace and all trades.

Factors Impacting Marketplace RTMD Fees

Fees will vary depending on:

- whether the RTMD is accessed directly from the marketplace or indirectly via a data vendor or IP;
- whether the RTMD is redistributed by the recipient (internally or externally);
- the type of end-user for the RTMD (e.g., human professional or non-professional users, or a machine);
- the depth of RTMD accessed (Level 1 or Level 2).
- how the feed is accessed; and,
- who is responsible for such fees.



Core Marketplace Revenue:

CSA considers core marketplace revenue to be the revenue collected by marketplaces from the fees charged for:

- access to the marketplace, including connectivity (e.g., logical connectivity for data access and order entry and physical connectivity), colocation, membership, and other fees (e.g., smart order router);
- trading; and
- market data.

Market Data Revenues

CSA considers market data revenue to be the revenue collected by marketplaces from the fees charged for:

- the use of Level 1 and Level 2 RTMD feeds by professional and non-professional users – the discussion below uses the term *data subscriber* when referring to the revenue earned by marketplaces from these fees;
- the use of quotes by non-professional subscribers – the discussion below uses the term *quote usage* when referring to the revenue earned by marketplaces from these fees;
- distribution/feed licenses – the discussion below uses the term *distribution/feed fees* when referring to revenue earned by marketplaces from these fees;
- *data license*; and
- *historical data*.

Data subscriber and quote usage revenues are also referred to as display revenue.

Data Subscriber Revenue

Data subscriber revenue represents money earned from subscribers that use display services.

Data Distribution Revenue

Data distribution revenue represents money earned by marketplaces from fees charged to data recipients for the redistribution of RTMD feeds (i.e., Level 1 and Level 2 feeds), internally (i.e., to users within the data recipient), and/or externally (i.e., to subscribers outside the data recipient). It generally includes distribution fees that some marketplaces refer to as *feed fees*.

Data License Revenue

Data license revenue represents money earned by marketplaces from license fees relating to the receipt and use of RTMD for particular use cases – most commonly in relation to non-display use involving the receipt and use of RTMD for analysis programs or order generation/trading applications (including use for smart order routing and algorithms).



Other uses for which license fees might apply include the use of data for creating and distributing derived data or proprietary indices, or where the data is being stored for historical reference purposes



Schedule II: Regulation of Market Data in Canada

a. Regulatory Requirements Impacting Access to RTMD

When dealers enter “directed-action orders”, the Order Protection Rule (**OPR**) of Part 6, National Instrument 23-101 *Trading Rules* (**NI 23-101**) requires marketplaces and dealers to have policies and procedures to prevent order execution at an inferior price to better-priced orders displayed on protected Canadian marketplaces. Compliance with such policies and procedures is typically managed in reliance on access to RTMD from all visible markets.

The best execution requirements of the Universal Market Integrity Rules (**UMIR**) require procedures for achieving best execution for clients. Consolidated RTMD from all marketplaces is necessary to achieve best execution, despite the UMIR requirements not mandating access to RTMD from all marketplaces.

b. Marketplace RTMD Fees – Current Regulatory Regime

See National Instrument 21-101 *Marketplace Operation* (**NI 21-101**) and NI 23-101 *Trading Rules*.

i) Marketplace Fee Changes

Currently, all marketplace fee changes, including those relating to RTMD, are subject to regulatory review and approval. Proposed fee changes are generally not subject to a public comment process, unless they potentially have a significant impact on stakeholders or raise public interest concerns.

Generally, the fair access requirements under NI 21-101 are used to evaluate proposed fee changes. When a marketplace is setting or changing its fees, the marketplace must compare its proposed fees against those charged by other marketplaces for similar services in the Canadian market. Fees charged by international marketplaces may also be considered where a Canadian marketplace is introducing a new fee.

ii) Fee Review

- Data Fee Methodology (DFM)

The DFM is used to assess compliance with the fair access requirements for professional user fees. The DFM is applied on an annual or ad-hoc basis to review the professional user fees charged by marketplaces for access to Level 1 and Level 2 feeds in Toronto Stock Exchange-, TSX Venture Exchange-, and Canadian Securities Exchange-listed securities. The DFM relies on pre- and post-trade metrics to establish a permissible fee range for each applicable marketplace.

- Review Protocol

Marketplaces are also subject to a “review protocol” to review, publish and approve marketplace changes, including RTMD fees. The protocol is administered by the Ontario Securities Commission, British Columbia



Securities Commission and Alberta Securities Commission in collaboration, with all equities marketplaces in Canada. A marketplace making a fee proposal may be required to submit supporting information such as the potential impact of the change on market structure or market participants, the fee methodology used, and the reasonability of the proposed amount.

iii) **The Equity IP/TMX-IP**

The equity IP is the central party to consolidate and publicly disseminate RTMD (**equity IP**) in order to mitigate the effects of fragmentation of information arising in a multiple marketplace environment. Part 14 of NI 21-101 sets out the regulatory requirements for the equity IP in respect of the collection, processing and dissemination of RTMD, and the provision to all market participants of prompt and accurate order and trade information. The CSA approves the consolidated and non-consolidated RTMD feeds disseminated by the equity IP. Any changes to these products must undergo public comment and approval by the CSA.

Currently, the Toronto Stock Exchange is the equity IP (**TMX IP**) for exchange-traded securities other than options. Fees charged by TMX IP rely on the “pass-through model”, under which subscribers access consolidated RTMD from the equity IP, subject to the respective terms set by each marketplace for its data included in the consolidated data product. Subscribers must contract with each individual marketplace that has data included in the product the subscriber is purchasing. Based on subscribers’ use of RTMD feeds, subscribers pay an amount equal to the aggregate of the fees charged by each marketplace. TMX IP charges an additional administration fee where applicable, subject to review and approval by the applicable securities regulatory authorities (**SRAs**).



Schedule III

Other Jurisdictions' Regulation of Market Data

United States

The Securities and Exchange Commission (**SEC**) has three initiatives to update the US regulatory system for the collection, consolidation and dissemination of certain core market data:

- (i) Fees proposed by the national market system plans (**NMS plans**) must be published for comment and approved by the SEC.
- (ii) To address inefficiencies and conflicts of interest, equity exchanges were required to submit a new NMS plan relating, in part, to the consolidation of equities order and trade data that would combine the three existing NMS plans into one and impose governance requirements on the new NMS plan. The proposal has been approved with modifications, though not yet implemented.
- (iii) The SEC approved rules that improve the existing model for data collection, consolidation and dissemination (**Market Data Infrastructure Rule**). The Market Data Infrastructure Rule seeks to expand the breadth and depth and thus the availability of consolidated data covered by the NMS plans, by expanding the content of core data that will be made widely available in the NMS and modifying the manner of collection, consolidation and dissemination of such data. The Market Data Infrastructure Rule also allows for multiple consolidators of applicable market data, encouraging competition with the intention that consumers of the market data will overall be better served. This rule became effective in June 2021, with a schedule for implementation.

European Union

Marketplaces in the EU must make both pre- and post-trade data available on a reasonable commercial basis to ensure participants have access in a non-discriminatory manner and must make this data available free of charge 15 minutes after publication. Currently, no equity IP-type entity exists in Europe.

The European Securities and Markets Authority (**ESMA**) published final guidelines on June 1, 2021 ("*Final Report: Guidelines on the MiFID II/MiFIR obligations on market data*") effective January 1, 2022, covering topics such as the need for clear and accessible market data policies, standardization of certain key terms, provision of data on the basis of costs, provision of free market data 15 minutes after publication, unbundling of market data rates, per-user based fees that would allow for a single charge for use of the same data when received from different providers, and transparency obligations in relation to market data policies and fees. The expectations set out in the ESMA's guidelines apply to all national competent authorities, trading venues, approved publication arrangements, consolidated tape providers, and systematic internalisers.

International Organization of Securities Commissions

On April 28, 2022, IOSCO published the IOSCO Report, which summarizes comments received by IOSCO to its December 2020 consultation report on access to market data..



The IOSCO Report highlighted three regulatory considerations for regulators when reviewing RTMD provided by trading venues and over-the-counter markets: (i) the varying needs of different market participants to make informed investment, order routing, and trading decisions; (ii) Given that market data is not always interchangeable, the extent to which access to free or delayed data may meet market participants' needs; and (iii) Consolidation of market data may help reduce access costs, identify liquidity, and compare execution quality in jurisdictions where fragmentation of liquidity is an issue.

