February 14, 2023

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, Department of Justice and Public Safety, Prince Edward Island
Nova Scotia Securities Commission
Office of the Superintendent of Securities, Service NL
Northwest Territories Office of the Superintendent of Securities
Office of the Yukon Superintendent of Securities
Nunavut Securities Office

Ontario Securities Commission
20 Queen Street West
19th Floor, Box 55
Toronto, Ontario M5H 3S8
comments@osc.gov.on.ca

RE: CSA Consultation Paper 21-403 *Access to Real-Time Market Data*

Dear Sirs / Mesdames:

TMX Group Limited ("**TMX**") occupies a central role in the Canadian capital and financial markets. TMX is an integrated, multi-asset class exchange group. Its key subsidiaries operate cash and derivatives markets for multiple asset classes, including equities and fixed income, and provide clearing facilities, data driven solutions and other services to domestic and global financial and energy markets, and their participants. TSX, TSX Venture Exchange ("**TSXV**"), TSX Alpha Exchange ("**Alpha**"), Canadian Depository for Securities, Montreal Exchange, Canadian Derivatives Clearing Corporation, Shorcan Brokers Limited and other TMX companies provide listing markets, trading markets, clearing facilities, data products and other services to the Canadian and global financial community.

TMX welcomes the opportunity to comment on CSA Consultation Paper 21-403 *Access to Real-Time Market Data* (the "**Consultation**"). Our equity markets — TSX, TSXV and Alpha — originate the majority of real-time market data ("**RTMD**") that is the subject of the Consultation. In addition, TMX, through its information services division, TMX Datalinx, distributes this market information, and TSX Inc. operates the Information Processor ("**IP**") that consolidates RTMD from all Canadian equities marketplaces. Furthermore, TMX works to educate and raise interest in the Canadian capital markets among global participants. TMX's responses to the Consultation are grounded in the practical experience gained through its unique and central position in the Canadian financial market ecosystem and its first-hand knowledge of issues relating to data production, consolidation and distribution to a wide array of market participants and other data consumers.

Based on its experience and taking into account input from relevant stakeholders, TMX endorses a nuanced approach to RTMD regulation that reflects the diverse needs and interests of different types of market participants and RTMD consumers, rather than the one-size-fits-all model. One-size-fits-all models rarely produce good results, and as the Consultation itself notes, "[a]ll participants interviewed expressed the view that the use of RTMD should be tailored to a participant's needs and that not all participants need access to the same RTMD to conduct their business."[1]

Put simply, different market participants have different needs and each segment of the market has not experienced the same impact on their costs. Certain market segments have seen their costs increase, while others' costs have remained stable over a long period of time, and others have seen discounts. Any RTMD regulatory solution should reflect these differences. Certain market participants may require access to RTMD from all markets in order to fulfill their regulatory obligations — e.g., best execution and Order Protection Rule ("**OPR**") requirements. For these market participants, the issue becomes one of access because they are unable to meet their regulatory trading obligations without access to RTMD from all Canadian equities marketplaces. TMX wholeheartedly endorses a regulatory framework that facilitates such access to RTMD products in light of the regulatory obligations of these market participants. Such a framework is both appropriate and in the public interest.

However, for market participants whose use of RTMD is discretionary and not aimed at satisfying their regulatory requirements, their choice to consume data is more akin to an ordinary business transaction.[2] Although there is no denying that at a certain price, data from all equities markets may be taken by all market participants, that should not drive decisions on regulatory intervention in the form of price setting. Market participants who are not obligated to use consolidated RTMD in order to comply with regulatory requirements should be free to make their own decisions on the data products that satisfy their commercial needs at prevailing market prices.[3] Furthermore, they should not be required to bear the extra costs of subscribing to a greater variety of data information than they need or want, nor should the overall market (or certain constituents) be required to bear the cost of developing and offering such a product to such discretionary users. Such discretionary users, of course, as a matter of commercial demand, may choose such services at market-driven prices. Regulatory limitations on the commercial relationship between these data consumers and their data providers should be limited to similarly situated customers having access on the same terms as other similarly situated customers without discrimination, which is in line with concepts of fair access to market infrastructure providers.

The Consultation proposes a process to review the current data fee methodology ("**DFM**") that would rely on the advice of a single academic or other expert. TMX believes strongly that the process to review the DFM must broadly reflect the expertise and diversity of all of those affected by the recommendations to the DFM. To the extent the CSA is considering external assistance to review the DFM, TMX endorses the concept of an advisory panel/committee broadly composed of industry expert stakeholders ("**Blue Ribbon Panel**"), rather than reliance on a single expert

[1] CSA Consultation Paper 21-403 *Access to Real-Time Market Data* (2022) 45 OSCB 9490, at section 3.2 [***Consultation***].

[2] For example, Advisors (as defined herein) consider a number of variables in addition to market data costs when considering their RTMD needs including costs associated with back office administration, compliance and technology/distribution.

[3] Broker-dealers have policies that indicate best execution is managed by their smart order routers, as due to the complexity of the market, end user market participants generally cannot see and react to individual orders. For example, see TDWCI Best Execution and Fair Pricing Client Disclosure.

individual. Ceding this review to a single individual consultant, academic, or industry expert, could undermine transparency, is unlikely to account for multiple stakeholder interests and may not yield practical results. Determining a new broadly accepted DFM will be a complex undertaking, requiring balance among competing goals and the interests of stakeholders. The acceptability and legitimacy of the outcome will be greater where a variety of expert stakeholders are represented and have an opportunity to contribute to the final recommendation.

A Blue Ribbon Panel should also be used in assisting with determining the best path forward in relation to the various initial and longer-term options raised in the Consultation, which we discuss below.

We also include responses to specific questions raised in the Consultation. Our responses are grounded in an understanding that the various potential solutions to many of the issues raised by the Consultation will provide varying benefits to different groups of stakeholders, the cost of which potentially will affect those groups differently. Accordingly, any examination of these issues, especially the longer-term options, must include a robust and thorough cost/benefit analysis. We appreciate that any proposed rules that come out of the Consultation would be published for comment. Prior to that stage, however, we urge the CSA to conduct a thorough cost/benefit analysis to ensure that the economic costs of any proposals are weighed against the benefits to all stakeholders.

I. Background

TMX serves the Canadian and global capital and commodities markets in a variety of ways — as a market operator and post-trade clearing provider, a technology provider, a provider of real-time market data and a provider of data analytics. Some of these functions are regulated, such as the exchange and clearing businesses, but others, such as the technology and certain of the data and analytics businesses, are not. Although all of the products offered by TMX may facilitate the efficient operation of the capital markets, only some of them are subject to regulation. The two types of businesses should not be viewed in the same way.

For example, TMX Datalinx offers its customers a broad range of real-time, historical and other regulated data products and services, while TMX Insights offers its customers an integrated set of analytic capabilities using various financial content, tools and applications designed to help customers make better trading and investment decisions, which services are not regulated. TMX also operates the IP, which provides a central source of consolidated Canadian equity market data that meets standards approved by regulators. IP products include, among others, the Consolidated Data Feed, Canadian Best Bid and Offer, Canadian Best Bid and Offer for Protected only markets and other consolidated data products.

As a market operator, we run sophisticated technology that must have significant operational capacity and be resilient to threats, which include cyber, natural and financial (among many others), set rules for orderly trading, maintain market integrity, create trading processes that allow market participants to learn about the level of trading interest, submit orders and transactions with one another and allow for price discovery. It has been recognized that the data that results from these activities is valuable because of the matching and aggregation services that markets provide.[4] In this sense, market data is a product of the exchange and should not be viewed as merely the trading information that is being passed back to customers.

Furthermore, TMX operates in a multi-marketplace environment, both as a result of domestic competitors but also competing global markets. In such an environment, market forces act as a natural check on the price of market data because overcharging for such services would result in trading activity migrating to other venues, which would not only decrease trading revenue, but also the value of such market data itself. In considering regulatory reforms that involve significant intervention in this area, such as price setting and mandated services, it is important that the urge to intervene through regulation be tempered by the recognition that market forces may exert as strong an influence on the delivery and pricing of such services. Regulatory solutions therefore, should be reserved and applied in the narrowest of circumstances, that is where market forces are inadequate.

A. Various Market Data Consumers and Their Relationship to RTMD

Market data has many uses, and different market participants have differing needs for market data. These differences are significant, and any approach to regulating RTMD should be tailored to these differences. Among the broad categories of RTMD data consumers[5] are:

1. Broker-dealers. Broker-dealers responsible for order routing with best execution obligations occupy a distinct category of market data consumer and rely heavily on Level 2 data feed and display access.[6] They have the view that they must acquire RTMD from all marketplaces in order to comply with their regulatory obligations, such as best execution and OPR. These market participants require broad visibility into the liquidity available in each marketplace — i.e., depth-of-book or Level 2 data — in order to provide best execution and to make informed order routing decisions. Accordingly, based upon applicable law, these broker-dealers have regulatory obligations (although not explicitly stated in regulation) to obtain market data from all equity markets.[7] It is therefore

[4] See, for example, J. Harold Mulherin, Jeffrey M. Netter, & James A. Overdahl, "Prices Are Property: The Organization of Financial Exchanges from a Transaction Cost Perspective" (1991) 34 Journal of Law and Economics 591.

[5] Other users not listed above, including proprietary and high-frequency trading firms (HFTs) and financial product originators and proprietary and high-frequency trading firms are not obliged to have broad visibility into the liquidity on every market to comply with a regulatory obligation. Rather, these firms may access full depth-of-book RTMD because of their trading strategy or for commercial purposes. Such firms may also be willing to pay for co-location services in order to minimize data and trading latency in support of their selected business models. Financial product originators may use market data, whether historical or RTMD, to create financial products or to devise trading strategies. For example, a financial structuring firm may create a new class of investable asset developed using historic or RTMD, while another firm may use RTMD to develop and test trading algorithms. The nature of the market data used, whether Level 1 or Level 2, and whether from a single or consolidated market(s), is dependent on a number of factors.

[6] As per TMX records, over 80% of end user subscribers of trading system providers rely on Level 2 RTMD.

[7] These obligations stem from OPR and best execution requirements. Part 6 of National Instrument 23-101 *Trading Rules* ("**NI 23-101**") imposes requirements on marketplaces and dealers to establish, maintain, and comply with policies and procedures reasonably designed to prevent the execution of an order at a price that is inferior to better-priced orders displayed on protected Canadian marketplaces. Best execution requirements set out in Part 4 of NI 23-101 requires broker-dealers to make reasonable efforts to achieve the most advantageous execution terms reasonably available under the circumstances when acting for a client. It is generally understood that, where securities trade on multiple marketplaces in Canada, the practical result of these requirements is that broker-dealers should consider information from all appropriate marketplaces, and would require RTMD from all appropriate marketplaces.

appropriate and in the public interest that the provision and pricing of such data to these users be subject to regulatory oversight to ensure that they have fair access to the data necessary to satisfy such obligations.

2. Wealth advisors and financial planners ("**Advisors**"). Advisors help their clients build wealth over time and, thus, typically only require an indicative price of a security at the moment — i.e., top-of-book or Level 1 data from the particular market in which they trade to service their largely retail clients. This information is sufficient for Advisors to provide financial advice to their clients, provide indicative pricing and to formulate their trading strategies. Advisors satisfy their fiduciary obligations to clients to obtain best execution in reliance on their broker-dealers, on which the OPR and best execution requirements rest. Further, unlike broker-dealers, Advisors' use of Level 2 data is typically from a single market and reflects an individual Advisor's interest to see a broader section of order data (as it is our understanding that wealth management firms leave the decision to use Level 2 data to their Advisors).[8]

3. International clients. This subset of users are effectively precluded from low latency trading because of their lack of physical proximity to a Canadian trading engine. Instead, they are looking for indicative pricing and high quality closing prices.[9] Note that in many instances these clients are closed for trading when our equities markets are open. When these international clients trade they will transact through a Canadian broker-dealer, who is authorized to trade in our markets and is subject to OPR and best execution requirements. Like Advisors, they use Level 2 data indirectly, relying on their broker-dealers executing trading orders. Where international users seek Level 2 data directly,[10] it is in furtherance of a specific business or commercial strategy, not as a regulatory or compliance requirement.

4. Retail investors. Retail investors typically access market data directly to monitor their investments. Such investors access the markets through direct investing firms and commonly use Level 1 RTMD from the primary listing exchange for indicative pricing. Not long ago, almost all retail Investors only had delayed market data, but today almost all have access to free RTMD from their direct investing trading provider. This has significantly improved the ability of retail investors to make informed investment decisions. A very small percentage of retail investors seek access to Level 2 RTMD.[11]

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[8] Approximately, 37% of Advisors utilize Level 2 RTMD. Typically, Level 1 is paid by the Advisor firm and Level 2 RTMD is paid for by the Advisor. Our experience is that most Advisors do not wish to use Level 2 RTMD regardless of the price (been confirmed through various free trials). Advisors who do pay for Level 2 RTMD find the fee reasonable (again trial discounts programs have not changed the Advisors pattern of whether they use Level 2 RTMD).

[9] TMX has seen very strong growth in data feed services from international clients using Level 1 RTMD feeds. TMX has responded by opening offices and adding sales staff in both the U.S. and European markets over the last 15 years to support this growth. Today, over 92% of TMX data feed clients and 85% of TMX IP clients are outside of Canada. Despite this, only a quarter of TMX data feed clients have expressed a need to access multiple marketplaces in Canada through the TMX IP feed, which speaks to clients preference to have options.

[10] As per TMX records, 18% of TMX international clients have access to Level 2 RTMD.

[11] Of our streaming Level 1 RTMD clients, only 4% access Level 2 RTMD. In our experience, retail investors are not interested in Level 2 RTMD. From what we understand, when retail investors were offered Level 2 RTMD through their direct investment provider and *at no cost*, there was still little interest in the Level 2 RTMD.

B. Regulatory Data Users and Commercial Data Users Have Different Needs for Market Data

Analyzing the various categories of market data consumers and understanding their use of market data leads to a ready means of distinguishing among them. Consumers of market data can be clearly divided into two broad categories:

- Regulated entities, such as broker-dealers, who are subject to regulatory requirements obliging them to obtain Level 2 data from all marketplaces ("**Regulatory Data Users**"); and

- Consumers,[12] who either do not have such regulatory obligations or do not satisfy them directly,[13] but who may choose to obtain such granular RTMD to further their commercial interests ("**Commercial Data Users**").

A properly tailored regulatory approach should respect this plain, and very real, difference between market data consumers. Any proposal that comes out of the Consultation must keep this in mind when considering reforms involving price-setting aspects, such as the DFM, and more fundamentally, in considering the applicability of the premise that a consolidated data feed for all markets should be mandated.

As a general principle, the CSA has an inherent interest in regulating the means and cost of data provision only where such data is necessary to comply with applicable regulatory requirements. Regulatory Data Users are required to obtain RTMD in order to satisfy their regulatory obligations. Because Regulatory Data Users do not have a choice but to obtain Level 2 data from all markets due to regulatory constraints, TMX supports a regulatory regime that ensures for Regulatory Data Users fair access to RTMD products at a price that accounts for these regulatory requirements and through appropriate means. In this regard, the question of whether a consolidated data feed should be mandated to be made available to all Regulatory Data Users by the means articulated in the longer-term options of the Consultation should remain an open question until further analysis is completed.[14]

In contrast to Regulatory Data Users, Commercial Data Users choose to obtain the type and scope of RTMD to further their respective business interests.[15] These Commercial Data Users should be free to tailor their data consumption to their needs based on the options available to them in the existing market for RTMD. TMX believes that it is unnecessary and inappropriate for the CSA to intervene in this relationship, other than requiring that marketplaces, as financial infrastructure providers, provide access to various classes of data users on the same terms and conditions as other similarly situated customers, without discrimination. For Commercial Data Users, the value of the data should be determined as a business matter, not subject to regulatory

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[12] Retail investors access the market through direct investing firms.

[13] For example, section 4.2 of NI 23-101 requires advisers to make reasonable efforts to achieve best execution when acting for a client. Investment advisors do not access the facilities of a Canadian marketplace directly as such access is generally limited to broker-dealers who are Investment Industry Regulatory Organization of Canada ("**IIROC**") members. As such, investment advisors, and other data consumers with regulatory obligations, typically satisfy such obligations indirectly through broker-dealers and the use of automated technological processes, such as smart order routers to effect trades on a marketplace.

[14] TMX understands that some Regulatory Data Users may prefer to obtain data feeds separately from the various markets and consolidate the information internally.

[15] See note 13 regarding how certain Commercial Data Users satisfy their regulatory requirements.

control. Commercial Data Users should be free to access data that best suits their commercial interests through a commercial transaction that makes the most sense for their needs and respective business models.[16] Mandating otherwise will subject the overall market to additional costs without clear evidence of corollary overriding benefit.

Some commenters (e.g., those who are motivated by commercial interest to minimize the cost of obtaining all market data or who seek to benefit from their data being required to be taken, despite the apparent lack of demand for it today) may suggest that rate setting and mandating the means of data provision is appropriate even for Commercial Data Users because of lack of competition amongst providers of market data. However, this is not the case. As noted in the Consultation, "[t]he Canadian equity markets have evolved over time from a structure in which trading in a particular security was concentrated on a single listing exchange, to one in which multiple marketplaces, both exchanges and alternative trading systems, compete for trading in the same securities."[17] The existence of competitive pressures observed by the Consultation is likely the result of data's primary role, and the source of its relative value, as a facilitator of trading, rather than as a stand-alone business line.

Thus, the potential loss of customers for a platform's data due to unreasonably high or non-competitive rates may very well translate into a loss of trading fee revenue as well, and ultimately, a significant loss of liquidity might in turn result in a loss of listings (in applicable) for the platform and their associated revenue. Accordingly, competition among trading venues has exerted, and will continue to exert, competitive market pressure on their data fees and, as described below, Commercial Data Users have not seen escalating costs for RTMD. This experience strongly suggests that the setting of data-related fees for Commercial Data Users is best left to market forces and the existing competitive pressures among trading venues. Doing otherwise is unwarranted, and would constitute an unnecessary regulatory intervention into the market and would likely result in a decrease in innovation.

C. Relative Impact of Users' Costs

As indicated in the Consultation and explained above, the data needs of users of RTMD are not created equally, and the corresponding impact on the cost of different categories of RTMD users helps to demonstrate why a tailored approach is necessary. Regulated Data Users whose demand for Level 2 data from all marketplaces is inelastic due to regulatory requirements, have seen their costs escalating over the years given that they must obtain Level 2 RTMD from all

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[16] In the U.S., different market participants are willing to pay for different data at different speeds. Some market participants may choose to pay for multiple proprietary exchange data feeds based on their own commercial needs; for other market participants, proprietary market data is neither necessary nor relevant to their business models and/or investment strategies, and they may choose to obtain only top-of-book data from the public "SIP" data feeds.

In June 2005, the U.S. Securities Exchange Commission ("**SEC**") focused on the same issue that the CSA has identified. The SEC introduced Rule 603(c) which states the following: *"Rule 603 of Regulation NMS (Vendor Display Rule) generally requires broker-dealers to provide a consolidated display of market data for NMS stocks for which they provide quotation information to customers."* Despite this Rule, it is our understanding that market participants have implemented alternative solutions to satisfy their needs. In the U.S., most market participants will take a less expensive data service for wealth management purposes. Since wealth management staff rarely quote market data to retail investors, they use the SIP consolidated data on a usage basis for those rare times. The US experience should be considered before introducing a similar requirement in Canada.

[17] *Consultation*, supra note 1 at Item 1.

marketplaces,[18] as accurately highlighted by the CSA (and depicted in Figure 26 of the Consultation).

Figure 26 - Level 2 - Direct

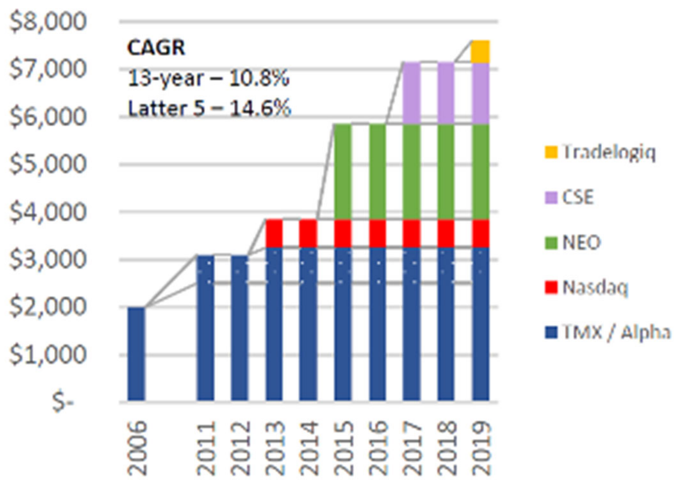
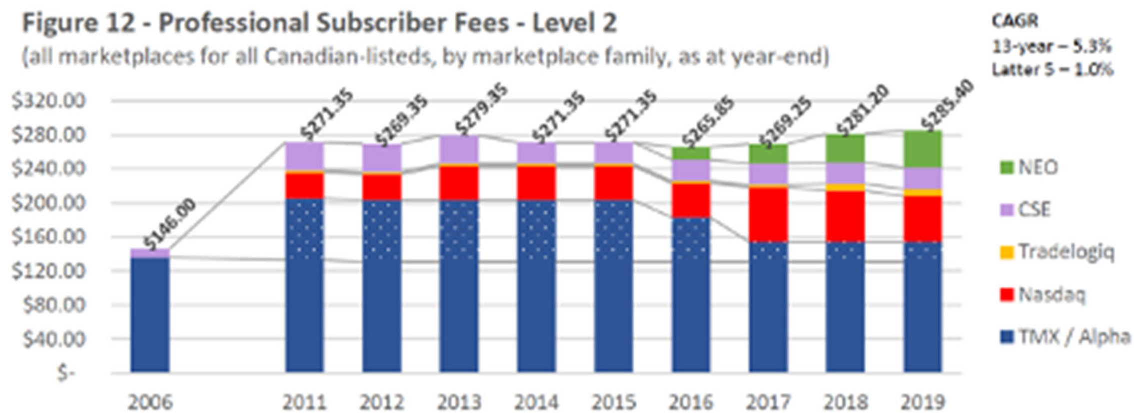
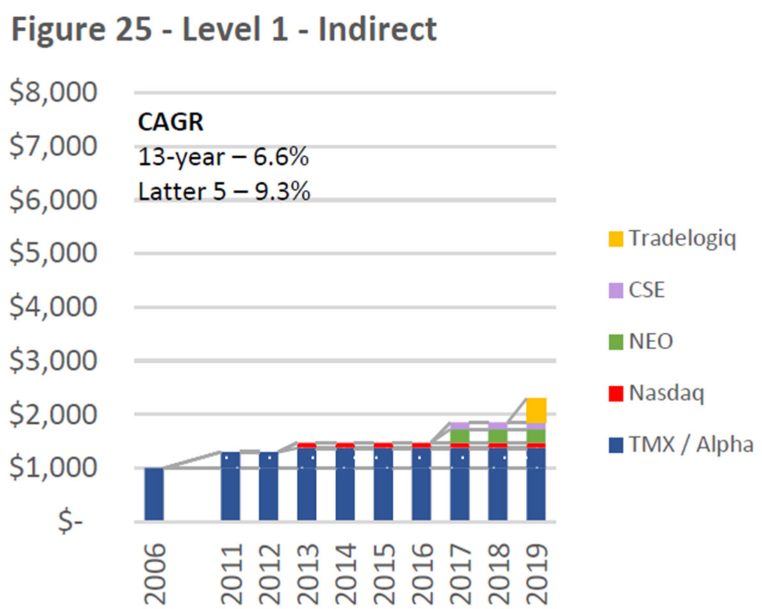


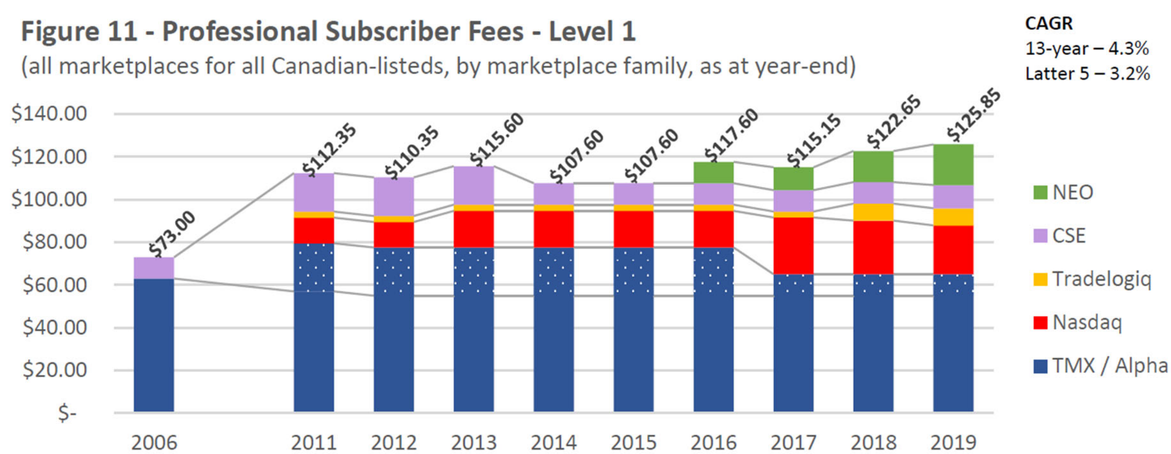
Figure 12 - Professional Subscriber Fees - Level 2
(all marketplaces for all Canadian-listeds, by marketplace family, as at year-end)



In contrast, certain Commercial Data Users, such as international clients and Advisors, primarily use Level 1 data displays and data feeds. Commercial Data Users have been immune to the fee increases associated with Level 2 RTMD, since, although not necessary, they typically obtain their Level 1 data displays and data feeds from the primary listing markets. For example, international clients will not take direct feeds from all marketplaces, but instead often obtain RTMD from vendors through an indirect data feed. As shown below, users who take TMX marketplaces' Level 1 RTMD indirectly (in Figure 25 of the Consultation), and professional subscribers who take TMX marketplaces' Level 1 RTMD (in Figure 11 of the Consultation), have not seen escalating costs.

[18] However, the TMX cost for Level 2 RTMD has been flat to declining during the period from 2011 to 2019. See Figures 12 and 26 of the Consultation.





As illustrated in the figures above, the use case often dictates the type of RTMD that is required, which then, in turn, directly affects the price. In the case of Regulatory Data User, the cost of RTMD has increased, whereas Commercial Data Users have not seen similar increases. However, in both cases, TMX's fees for these services have remained relatively flat.

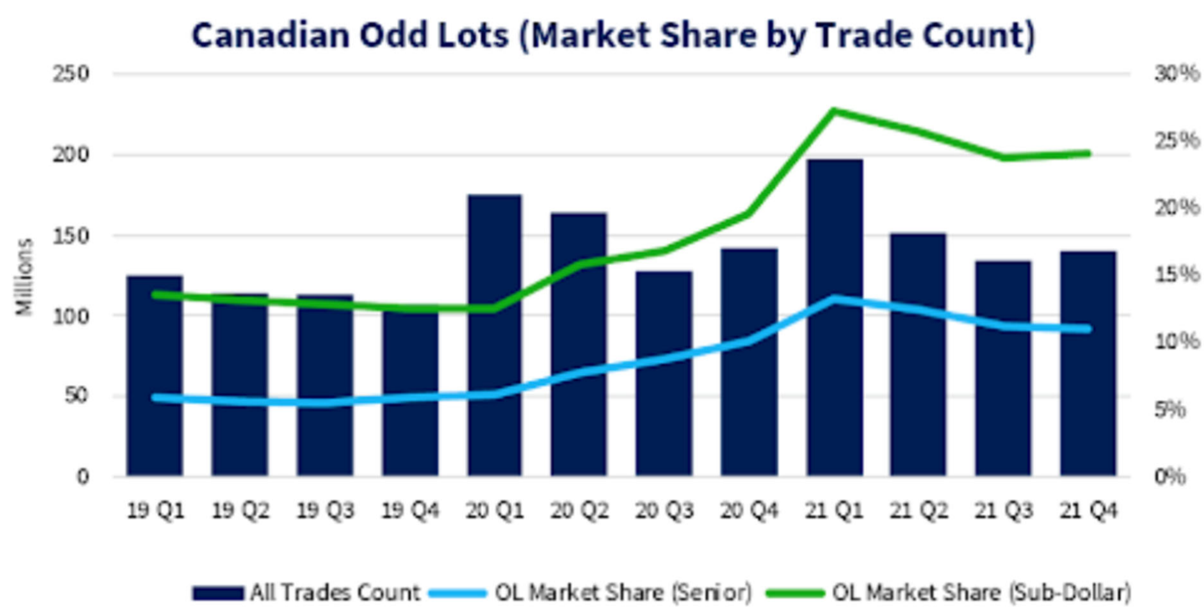
Market fragmentation and its associated competition may have had a different effect on Regulatory Data Users. As the Consultation stated, "information about orders and trades for the same securities is fragmented across multiple trading venues and may lead to inefficiencies, including impacts on access to RTMD."[19] Market fragmentation has increased the cost and complexity of obtaining RTMD from all trading venues, as Regulatory Data Users must do. TMX supports the CSA's effort to consider reforms respecting the terms under which Regulatory Data Users obtain access to RTMD.

[19] *Consultation*, supra note 1, at Item 1.

D. Other Practical Considerations

Despite Commercial Data Users not experiencing escalating RTMD costs given their tailored consumption, the Consultation focuses on the perceived benefit of such users obtaining RTMD on a consolidated basis. Although well intentioned, it is important to consider the practical realities of Commercial Data Users obtaining RTMD in this manner and how it would compare to how their RTMD needs are being met today. Below we provide a few examples where a consolidated service may not be as useful to these users. Generally, consolidated RTMD services (unlike Level 1 RTMD products), do not include odd lot order, auction or derived data. Such exclusions exist today with the U.S. Securities Information Processor ("**U.S. SIP**")[20] and we understand they are planned for the real-time consolidated tape in Europe.

For many Commercial Data Users, indicative pricing is sufficient and may be preferable. Generally, consolidated data does not include order data about odd lots, which forms an important part of order and trade information given the current definition of "standard trading unit" in the Universal Market Integrity Rules. By contrast, odd lot information is provided in Level 1 RTMD. As the graph below demonstrates, about 11% of securities traded in Canada trade in odd lots.[21]



[20] Final Rule: Market Data Infrastructure. However, on October 2, 2019, the SIP Operating Committees of the Consolidated Tape Association ("**CAT**") and Unlisted Trading Privileges ("**UTP**") Operating Committees published for industry comment an initial proposal for the current CTA and UTP to disseminate certain consolidated odd lot quotation data as ancillary information on the SIP data feeds.

[21] Data provides that higher priced securities tend to have a higher number of odd lot trades but significant odd lot trading even occurs in sub-dollar securities. See the SEC's "Odd Lot Rates in a Post-Transparency World", and Cboe's Changes and Opportunities in Canadian Dark Trading.

However, odd lot order data is included in the TMX proprietary Level 1 RTMD feed. As a result, the TMX equities marketplaces are top-of-book, with a combined average of approximately 99% (see below).[22]

TSX listed - Top of Book Level 1

VENUE CODE	TOP 60	61-300	300 AND ABOVE
TMX (TSX, Alpha, Tied)	99%	99%	97%

TSX listed ETFs - Top of Book Level 1

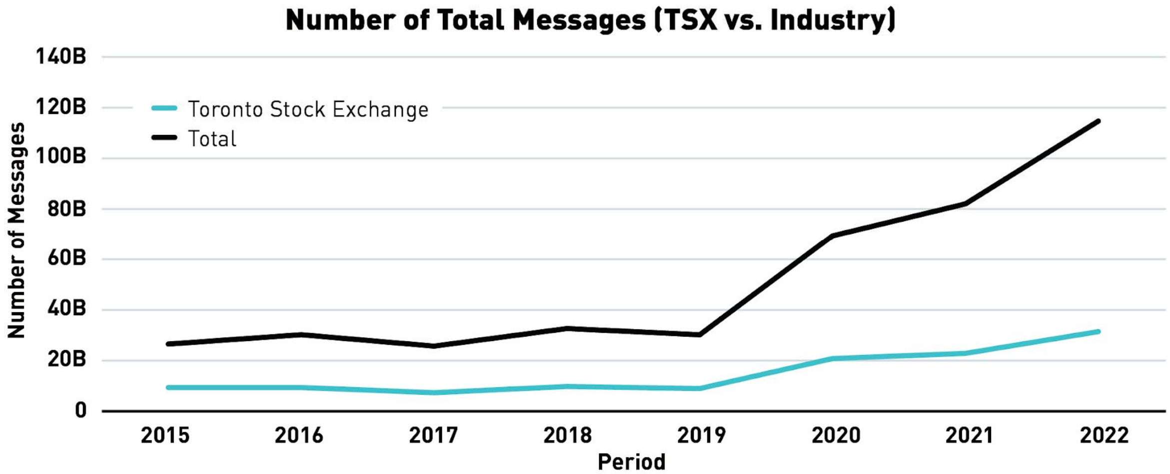
VENUE CODE	TOP 60	61-300	300 AND ABOVE
TMX (TSX, Alpha, Tied)	96%	94%	96%

These top-of-book figures evidence why market participants look to TMX feed for the best top-of-book service for display devices. By comparison, the maximum top-of-book for the IP is 89% and this number will drop as odd lot orders increase in the future.

Another misconception is that in today's trading environment, which is characterized by heightened message traffic as demonstrated by the graph below, Commercial Data Users would benefit from seeing every order in the market. In reality, displaying every order would result in the screens of end-users being incomprehensible given the level and frequency of order updates. The graph below highlights the increase in the number of messages over the years. To address this issue, market data vendors consolidate orders two or three times every second in a process called "conflation". As a result, end users will never see every individual order.[23] Accordingly, it is important to consider the practical realities of offering consolidated RTMD to Commercial Data Users and more appropriate to rely on some of the market-driven solutions that have arisen to address these realities.

[22] These results generally agree with those previously found by others, such as by National Bank Financial in their September 2020 Market Microstructure Report of the time for equities securities, and approximately 95% (see below) of the time for ETFs.

[23] However, it is important to note the market data vendors have data feeds that publish every order, which power smart order routers and allow broker-dealers to ensure best execution obligations are met.



Finally, it is important to consider what relevant information Commercial Data Users rely on today that would not be included in a consolidated service, such as auction data and derived data. TMX Level 1 RTMD includes auction data for the last 10 minutes of the day and derived data, including short interest data, beta values, buy backs, time weighted midpoint calculations at 11:00 am EST (for the London close). In order to continue to provide forward-looking solutions to data users that align with their evolving needs, the right incentives need to exist for marketplaces to continue to innovate. A mandated consolidation service will not provide innovative data content and could hamper the growth of the Canadian capital markets.

* * *

To summarize, TMX believes that a one-size-fits-all approach is not appropriate for, and would not best serve, the diverse interests of all market data users. Different market participants have different data needs and the regulatory framework should respect those differences. TMX agrees that for Regulatory Data Users, which are required to obtain access to Level 2 RTMD in furtherance of their regulatory obligations, it is appropriate for regulators to mandate the availability of market data at a price that accounts for this obligation and to engage in a process to ascertain whether fees for such data are reasonable. This, however, is not the case for Commercial Data Users, participants who do not have a requirement under applicable law or regulation to obtain access to Level 2 RTMD from all trading venues, but who choose to access market data to further their respective business interests. They are likely to continue to choose the data option that best meets their specific needs and would not benefit from mandating the scope of data and its associated fees in a way that would justify the cost to other market participants. TMX urges the CSA to consider all aspects of the Consultation in light of this more nuanced understanding of the potential effect of their proposals on each of the categories of market data consumers.

II. CSAs' Proposals—Initial Options (1 to 2 years)

The Consultation includes a number of initial (1 to 2 years) and longer-term (over 2 years) proposals to address CSA Staff considerations. TMX addresses each in turn.

> ***Initial Option 1. Enhance transparency of any fee proposals related to RTMD by requiring marketplaces, as part of the regulatory review and approval process, to publish proposed changes when they are filed for approval.***

As described in the Consultation, "currently, marketplace fee changes are published for public comment where, in Staff of the SRA's view, they may have a significant impact on the marketplace, its market structure, members, issuers, investors, or the Canadian capital markets or otherwise raise regulatory or public interest concerns."[24] The Consultation proposes to replace the current process for marketplace fee changes with a requirement for marketplaces to publish for comment *all* their proposed changes to RTMD fees as part of the review and approval process, and argues that this process "would impose discipline on marketplaces to publicly justify any changes to fees and/or fee models."[25] Although TMX supports greater transparency for market data fee changes, this goal is readily and more efficiently achievable without introducing a public comment process.[26]

Notably, TMX and other marketplaces are already subject to significant ongoing regulatory obligations with respect to fee changes and any departure from the current requirements is unnecessary. For example, Schedule 6 of the Ontario Securities Commission's recognition order recognizing each of TMX, TSX and Alpha as exchanges sets out detailed filing requirements for any fee change and describes the procedures for review by the Commission.[27] Similarly, the orders of the Alberta Security Commission and British Columbia Securities recognizing TSXV, require that fees will not have the effect of creating barriers to access, be balanced with the Exchange's need to have sufficient revenues to satisfy its responsibilities, and be fair, reasonable and appropriate.[28] Likewise, National Instrument 21-101 *Marketplace Operation* ("**NI 21-101**")

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[24] *Consultation*, supra note 1 at.subsection 7(1)(a). As noted in the Consultation this reflects the practice in Ontario.

[25] *Ibid.*

[26] To be clear, the role of government in setting fees related to data should not be conflated with other forms of market fees, such as listing fees or trading fees. Users of listings and trading services are similar to Commercial Data Users because there are alternative venues to list and trade securities, which means fee changes do not raise the issue of access to the market.

[27] Specifically, at least fifteen days prior to the expected implementation date of a proposed fee change, the Exchange must provide, among other materials: (i) the rationale for the proposed fee change and any relevant supporting analysis, (ii) the expected impact, including the quantitative impact, of the proposed fee change on the market structure, members and, if applicable, on investors, issuers and the capital markets; (iii) the expected impact of the fee change on the Exchange's compliance with Ontario securities law requirements, and in particular requirements for fair access and maintenance of fair and orderly markets; (iv) a summary of any consultations, including consultations with external parties, undertaken in formulating the fee change, and the internal governance process followed to approve the change; (v) the expected number of marketplace participants likely to be subject to the new fee, along with a description of the costs they will incur; (vi) if applicable, a description of how the proposed fee change applies differently across types of marketplace participants, a description of this difference, how it impacts each class of affected marketplace participant, including, where applicable, numerical examples, and any justification for the difference in treatment; (vii) a discussion of any alternatives considered; and (viii) if applicable, whether the proposed fee change would introduce a fee model that currently exists in other markets or jurisdictions. *In the Matter of the Securities Act, RSO 1990, c S.5, as amended and In the Matter of TMX Group Limited and TSX Inc. and Alpha Exchange Inc.*, 2020 OSC ("**TMX RO**") at Schedule 6, paragraph 7(a)(i).

[28] *TSX Venture Exchange Inc., Re*, 2012 ABASC 308 at paragraphs 32(b)-(d).

requires that a marketplace "must not unreasonably prohibit, condition or limit access by a person or company to services offered by it."[29]

These requirements demonstrate that TMX is already subject to significant obligations relating to fee changes. However, if after full consideration of the current regime, the CSA believes that additional measures are appropriate, TMX would support enhanced transparency under a requirement that markets provide advance public notice of all proposed data fee changes by publishing them for 30 days on the marketplace's website, subject to regulatory approval, before becoming effective. Although as a matter of good practice and visibility to our clients we have already taken a leading role in publishing our fee changes on our website prior to their effective date, we believe codifying this practice in a regulatory requirement, which includes a specific timeframe, will help ensure transparency and consistency across all marketplaces.

> ***Initial Option 2. Retain external assistance to review the DFM and its relevance in the context of domestic and international developments in equity markets. The review should include an examination of reference points that could be used by CSA Staff to allocate the share of fees chargeable by marketplaces under the DFM. The fee ranges assigned to each marketplace should be made transparent.***
>
> ***Initial Option 3. Create an industry group to help standardize key terms and definitions for access to and use of RTMD between marketplaces and market participants.***

The Consultation presents two additional initial options.

First, the Consultation proposes "retaining an external party" — such as "a consultant, academic, or industry expert" — "to review the DFM with the goal of setting appropriate reference points for the RTMD fees for consolidated data and addressing some of the other issues around its application."[30]

Second, the Consultation proposes "creating an industry group that includes data experts from market participants (including vendors, dealers, buy-side, etc.) that need access to and use RTMD as well as marketplace staff with expertise in administering RTMD contracts."[31] This industry group would be empowered "to identify and standardize those key terms and definitions (for example, definitions of 'professional' and 'non-professional' users) that are confusing and difficult to understand, maintain, and audit in the context of the access to RTMD feeds."[32]

As a preliminary matter, whichever form the outside advisor takes, it is critical that the CSA make clear that its role is merely advisory to the CSA, and that ultimately, effecting these changes will be left to the marketplace, as they are today. That is, that the role of the CSA regarding the issues addressed by the Consultation is properly understood within the traditional relationship between the CSA and the marketplaces, which are themselves in many cases self-regulatory organizations. Nothing in the Consultation suggests that effecting any changes to the status quo relating to access to data or associated data-related fees would be undertaken other than by and

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[29] NI 21-101 at subsection 5.1(1).

[30] *Consultation*, supra note 1 at.subsection 7(1)(b).

[31] *Consultation*, supra note 1 at.subsection 7(1)(c).

[32] *Ibid.*

through the efforts of the marketplaces, subject to the traditional review and approval processes of the SRAs.

With regard to the best alternative to act as advisor to the CSA, TMX strongly endorses the alternative proposal of forming an industry advisory group with respect to *both* issues — reviewing the DFM and standardizing key industry terms. Empowering a single individual — who would be removed from the data market and the regulatory and business environment in which data is consumed, and perhaps not equally aware of the varying perspectives of all data consumers—to make recommendations regarding DFM would impair the credibility, practicality and potential usefulness of any proposal eventually put forward by the CSA. Modifying the current regulatory framework for access to RTMD will be a complex undertaking, affecting many different stakeholders. As we have discussed, Regulatory Data Users and Commercial Data Users may have significantly differing interests. Accordingly, it will be important for a broad range of stakeholders to have reasonable visibility and the opportunity to provide meaningful input into this process.

TMX endorses the creation of a “Blue Ribbon Panel” comprising industry expert stakeholders, including qualified representatives from each marketplace, different market participants/data users, and third-party experts, to provide a meaningful advisory role in the process of reviewing and updating DFM. TMX believes that this panel would benefit from individuals with specialized views and expertise including business, operations, legal, regulatory, and technical knowledge. Such a Blue Ribbon Panel should draw from all segments of data consumers, including Commercial Data Users, who may not be subject to the DFM or mandated scope of data access. Their perspective and experience may be helpful in framing the advice rendered by the panel to the CSA. In addition, the acceptability and legitimacy of the outcome will be greater where a variety of stakeholders have reasonable visibility and the opportunity to provide meaningful input into the process. As the leading equities exchange and RMTD provider in Canada, TMX would be pleased to participate in such an industry group.

In forming a Blue Ribbon Panel, the CSA should take care to define the scope and contours of the panel’s remit, understanding that under the traditional relationship between the SRAs and the marketplaces, ultimate decision-making authority is reserved to the marketplaces. The marketplaces are subject to SRA-enforced, statutory obligations. The market participants who will be members of the Blue Ribbon Panel generally will not have regulatory obligations paralleling those of the marketplaces, and in some cases may not be subject to any SRA authority at all. If granted actual decision-making authority over the development of market data standards there would be nothing requiring these participants to act in the public interest. Accordingly, the role of the Blue Ribbon Panel is best understood as advisory to the CSA.

With an understanding of its advisory role, the Blue Ribbon Panel could provide the CSA with valuable advice and insight regarding the use of DFM, the reference points used to allocate those fees, and ways to improve transparency of DFM, for example by facilitating the publication of each marketplace’s fee ranges.[33] In this regard, TMX agrees with the CSA that the effectiveness of the current DFM, which the CSA formalized in 2016, has been reduced significantly over the years, and is unnecessarily complex. Any new DFM used by CSA members should be transparent, easy to understand, based on publicly available data, and not susceptible to manipulation. While not

[33] Any publication of fee ranges should highlight that the DFM only applies to fees payable by Regulatory Data Users. See CSA Staff Notice 21-319 *Data Fees Methodology*.

wishing to short circuit the work of the panel in any way, TMX believes that to be transparent and easy to understand the DFM should consider the following publicly available factors:

- IIROC Traded Values, broken down into three segments (*i.e.*, top 60 market capitalization firms, next 240 largest market capitalization firms, and finally the remaining firms);[34]
- Top of book order data (where marketplaces are alone at the top of book), broken down into the same three segments;
- International senior listing RTMD fees as published on their websites;
- Normalized trading summaries for global listing exchanges as published by the World Federation of Exchanges; and
- Canadian consumer price index data.

Moreover, TMX encourages the panel to also consider the following additional factors in construction of the DFM:

- Disregarding both intentional crosses and pegged market data;
- Including as a more meaningful criterion the time and length at which a marketplace is alone at the National Best Bid and Offer ("**NBBO**");
- Percentage of securities quoted with a two-way order (bid and ask) at the top of book
- Using the value of traded measurements rather than the volume of trades; and
- Creating a separate calculation for senior and venture markets.

Although establishing a DFM for Level 2 data is a significantly more complex undertaking, the following considerations should be taken into account when considering fees for depth-of-book data:

- The size of the order book value (five levels deep from the Top of Book) for each of three segmented listing groups (Top 60, Next 240 largest securities, and the rest of the market);
- The length of time orders are in the order book; and
- Considering the order to trade ratio.

TMX also supports the development of standardized key terms and definitions for the Canadian market data industry. TMX believes that divergence in the use of key terms and definitions has had a negative effect on market data consumers by adding to their costs and administrative burdens. With this in mind, TMX has already made certain strides to harmonize key terms.[35] Standardization of additional terms would further assist market data users, and is something we would work with the panel on addressing.

[34] Note the U.S. SIP uses four segments (Top 200, 201-500, 501-1000, 1000+). See Summary of Market Data Revenue Allocation Formula, at Table 1.

[35] Examples of terms including Professional Subscriber, Non-Professional Subscriber, Distribution (External, Internal), Delayed Data, Derived Data and Display Device that have been incorporated by Canadian and other marketplaces.

III. CSA Proposals—Longer-Term Options (Over 2 years)

Longer-Term Option 1. Leverage the current IP model by introducing a TIP+ Model.

Longer-Term Option 2. Introduce a new model for data consolidation through the use of an Admin IP.

The Consultation proposes several longer-term options, including: (1) an enhanced technical information processor ("**TIP + Model**") which includes consideration of capping data-related fees and allocating revenues; or (2) creation of a new model for data consolidation and distribution using an Administrative IP ("**Admin IP**") which would operate as a market utility. The Consultation is premised upon the need for major revisions to the current model and appears to assume that a new model rather than incremental enhancements is necessary to address any perceived shortcomings in the current model. However, it is not clear that either of the proposed alternatives would be superior to the current approach. Both longer-term options should be reconsidered.

The premise of the new utility model is based in part on the assumption that there is no competition to provide IP services and therefore a new utility is necessary. However, the current model permits competition; TMX IP's designation is not exclusive. Although no competitor to TMX IP currently exists, it is possible under the current arrangements that one might form if the current incumbent were to falter in its service offering or to make some other misstep which another firm could profitably exploit.[36] Creation of a government-sanctioned utility would not be subject to such competitive pressure to maintain the quality of its service at a competitive price. Indeed, there may be unintended consequences from granting a utility this franchise, in the form of inadequate investment in new technologies, higher costs, or a lack of responsiveness to users. Nor is there any assurance that if fees for such data are capped to those who are obliged to obtain such data — i.e., Regulatory Data Users — that any reductions in fees would be passed along to their customers. Finally, there is the fundamental issue that not all categories of RTMD users need or want consolidated RTMD and if they are mandated to obtain such data, they will have less choice at a likely higher cost. Accordingly, the economics of establishing a utility must be questioned, that is whether it only makes sense if all market data users are forced to subsidize a service that they do not want or need.

Because of these fundamental questions, the Blue Ribbon Panel should examine the issue and report back to the CSA on whether such a solution is necessary or appropriate for the Canadian financial ecosystem. In this regard, the experience in other jurisdictions, including the United States, is that consolidated information processes may introduce unintended consequences, including possibly encouraging further fragmentation and dark trading at the expense of competition for public quotes.[37]

Analogizing and learning from other jurisdictions is important, but solutions need to be appropriately calibrated for the Canadian market. It is important to consider that the significant costs to establish a consolidated information processor utility in Canada will be borne by a far smaller securities trading sector, and may not lend itself to being appropriately scaled to the

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[36] However, in other markets, such as the U.S.,the Securities and Exchange Commission ("**SEC**") sought to facilitate the introduction of competing consolidators but lack of economic viability of this business has meant that the only option has continued to be the SIP, which is operated by the primary listing exchanges. Similarly, in Europe, we understand that there has not been interest in competing equity consolidators to this point.

[37] *See, e.g.*, Phil Mackintosh, *How the U.S. SIP really works*, The World Federation of Exchanges.

smaller Canadian market. An analysis would need to be done examining the cost of the Admin IP model and whether it is rightly scaled to the size of the market.

With regard to the proposed IP + model, TMX, as the operator of the incumbent IP, agrees that enhancements to the current DFM may be helpful, and should be considered. Administrative modifications to the existing IP model, such as establishing a single form of agreement to access RTMD from the IP, would likely be welcomed by stakeholders and may be an area that can be readily addressed with no apparent downside. However, it is premature to conclude that fee caps are wise, or even necessary. TMX concurs that Regulatory Data Users should enjoy fair access to consolidated Level 2 data at a price that accounts for their regulatory requirements, but it has not been demonstrated that capping fees are necessary or the optimal means of achieving that result.

TMX believes that the first step in considering either of the Longer-Term Options is a meaningful cost/benefit consideration of each of the proposals. TMX believes that before any of the proposed options are proposed as rules, the economic costs must be weighed against the benefits to all stakeholders. Robust qualitative and quantitative analysis of the anticipated costs and benefits of a proposed rule must be completed. The ultimate legitimacy and acceptability of any of the longer-term proposed solutions, were they to be adopted, will be enhanced through such a process.

Although any proposed rules based on the proposals in the Consultation would be published for comment, analyzing the proposals early on using a cost/benefit lens is imperative.[38] There is now a significant body of economic analysis on how such cost/benefit analyses properly should be conducted.[39] This should be integral to any consideration of alternatives before a front-runner is selected, and not as a later step in the process.[40] Given the importance of this decision to the industry, TMX urges the CSA to conduct a cost/benefit analysis before making any determination to proceed with one of the longer-term alternatives. Failure to do so may lead to less-than optimal solutions.

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[38] In this regard, the *Securities Act* (Ontario) requires "a qualitative and quantitative analysis of the anticipated costs and benefits of [a] proposed rule." Securities Act, RSO. 1990, c S.5, as amended., s. 143.2(2)(7) The SEC has long recognized that a rule's potential benefits and costs should be considered in making a reasoned determination that adopting a rule is in the public interest. See Current Guidance on Economic Analysis in SEC Rulemakings.

[39] Although not applicable to provincial securities regulators, the Canadian government publishes a cost-benefit analysis guide for regulatory proposals. *See* Canada's Cost-Benefit Analysis Guide for Regulatory Proposals. The RSAs should at a minimum consider the longer-term options prior to a proposal using the standards and methodologies contained in this guidance.

[40] This is in accordance with the position of the Ontario government, which in the 2019 budget at item 12, stated that:

> Rule-making must weigh the economic costs against benefits to stakeholders. It is crucial when introducing rules that a robust impact analysis be conducted. Qualitative and quantitative analysis of the anticipated costs and benefits of a proposed rule would be provided within the OSC's rule publications and shared as part of the consultations on the proposal to better inform public comments and the rule-making process. This approach would enhance transparency and appropriately inform stakeholders of the impacts of new rules.

Although the provincial securities regulatory authorities are not bound by the Canadian government guidance on the conduct of a cost/benefit analysis and its role in decision-making.

IV. Responses To Specific Questions

A. Initial Options

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

QUESTION #1: Please identify any potential unintended consequences at the industry, marketplace, or firm level if we pursue this option.

QUESTION #2: Would this approach satisfy the need for more transparency in relation to proposed fee changes and their review process? If yes, please indicate what benefits this approach would offer. If no, please explain why and whether other requirements should be considered.

TMX supports transparency in relation to proposed fee changes and believes that the current fee notification and review arrangements provide full transparency regarding fee changes. TMX further believes that the procedures suggested in the Consultation, requiring marketplaces to publish for comment all of their proposed changes to RTMD fees, will be counterproductive, increasing the complexity of the process without increasing the information available to market participants resulting in unwarranted delay. The result will be contrary to the goals of the Consultation.

Currently, TMX provides clients and data vendors 90 days' written notice of all pending fee changes. Notices to clients include all relevant details of a proposed fee change, a summary reason for the change, implementation date, and legend that the change remains subject to regulatory approval. When helpful, TMX includes a description of the methodology used to set the proposed fee.

The 90-day notice period prior to implementation of a proposed fee change affords clients the opportunity to provide comments, and raise concerns of the anticipated change directly to TMX. The period also provides clients with time to request additional information including pro forma impact statements.

In addition to the 90-day notice period, TMX publishes a notice of proposed fee changes on its website.

In contrast, the procedure proposed in the Consultation would require TMX to provide to all clients in every instance of a pending fee change, even those which are not material, a description of the methodology used to set the proposed fees, an analysis of the impact on stakeholders, or a description of costs to TMX to produce a product or service.[41] The proposed change would make the process, and resulting review by the regulators, vastly more complex and lead to delays and inefficiencies. This is particularly unwarranted in respect of optional / subscription based products, which are purely commercial agreements, where delaying regulatory approval for at least 30 days after a proposal has been made public, "or longer where warranted based on the complexity of the proposal" is contrary to the needs of the market for a streamlined approval process.

The proposed recommendation in the Consultation would impose a significant burden and cost on the industry and is unnecessary to achieve the goal of the CSA, to "allow interested parties to provide feedback for consideration by the SRAs" which exists under current practices. Prior to adopting (or recommending) this proposal, the SRAs should conduct an analysis of the cost and benefits of the proposal. We believe that the proposed change will not yield any material benefit over current procedures, and any perceived benefit will not outweigh the burden that the new process would impose.

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

QUESTION #3: What are your concerns, if any, with continuing to use the DFM? If the DFM were to continue to be used, what changes are necessary?

Calculation of the current DFM is not consistent across marketplaces. To ensure the integrity of the calculation and transparency to market data clients, TMX supports a DFM that is simple, straightforward and not subject to artificial gaming. The DFM currently is inconsistently constructed, applying different pricing methodologies to similar products across different markets (e.g., where marketplaces apply consolidated prices to multiple products and not on a per-product basis) and not differentiating between senior or venture markets. These inconsistencies affect the setting and allocation of fees, and impact the transparency of the DFM.

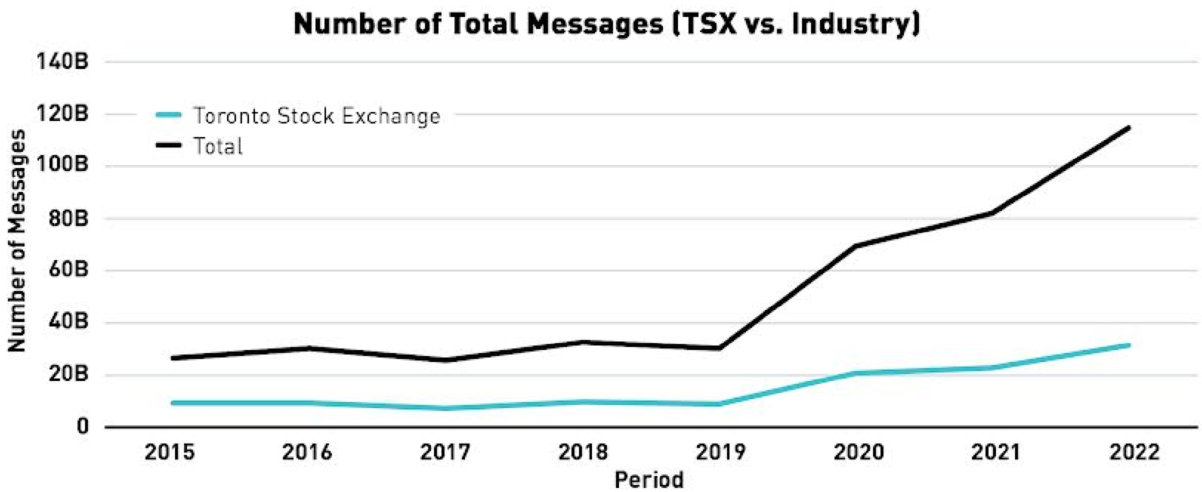
The DFM's current allocation of a very small portion of TMX fees for the purposes of the calculation is conceptually problematic when comparing the value of a large senior market with a much smaller venture market. This results in an inequitable allocation to marketplaces that consolidate RTMD fees.

As noted in our response above, TMX believes strongly that the process to review the DFM must reflect the expertise and diversity of those affected by the DFM. For this reason, TMX suggests the concept of a Blue Ribbon Panel to determine how best to approach the current DFM format. If the current DFM were to continue be used, considerations by the Blue Ribbon Panel should be given to the following enhancements:

[41] Please note that with over 300 products, TMX does not perform individual cost allocations at a per product level.

Implementation of an appropriate order and trade benchmark methodology. As set out above, with the TMX IP as the only provider worldwide of a Level 2 consolidated data service, there are no comparables and the traditional DMF measurements of top of market quotes and trades do not apply. An appropriate order and trade benchmark methodology should be considered that clarifies how to evaluate a marketplace market data value and fees, particularly Level 2 RTMD fees (e.g., Level 2 orders which eventually result in trades should be weighted higher).

Explosive order message growth. There is no doubt that the number of order messages is increasing. As reported by IIROC and shown in the graph below,[42] the number of order messages has significantly increased in the last 6 years, and particularly in the last four years with a 400% increase.



This constant need for capacity upgrade is a significant cost burden to all marketplaces, data vendors, and communication networks across the industry. Using IIROC data for 2022,[43] the following is the ratio of orders to trades across Canadian marketplaces:

Order/Trade ratio

PERIOD	TORONTO STOCK EXCHANGE	TSX VENTURE EXCHANGE	CSE	OMEGA	NASDAQ CXC	ALPHA	NASDAQ CX2	NEO-N
2022	119	26	326	219	301	290	567	561

The value of orders which results in trades will and should have greater value than orders that never result in a trade. The DFM should account for this accordingly.

Elimination of intentional cross trades as part of the DFM. Intentional cross-trades lack market data value. Permitting intentional cross trades as part of the DFM only incentivizes marketplaces to execute trades with no market data value and could be a means of gaming the DFM calculation. It also provides the appearance of a "conflict of interest" if marketplaces are paying for an

[42] Report of Marketshare by Marketplace, *IIROC*.
[43] *Ibid.*

intentional cross trade while at the same time they are receiving value from the existing and potential future DFM for executing that intentional cross trade.

Use of value trading versus volume traded or number of trades. Limiting the measurement of the DFM to the value of the market data traded, and capital raised by the marketplace is more reliable and reduces any risk of gaming the DFM calculation that would result from artificially breaking up trades or focusing on executing trades for low-priced securities with high volumes.

In the U.S., the SIP equally allocates 50% of the revenue for orders and trades. For trades, one credit is given for every trade over $5,000. There is no difference in credits offered for trades in excess of $5,000 resulting in a risk that marketplaces split trades to increase its percentage of revenue allocation as per the SIP model.

Alone at top-of-book. Measuring and accessing value based on whether and for how long a marketplace is alone at the top-of-book is a more reliable way to assess market data value.

Eliminate the impact of pegging. While pegging is a necessary market liquidity tool, the value of market data derived from pegging is reduced and should not be relied upon or used as the main determination of order values as a measurement for the DFM.

By way of example, the three newest marketplaces in the U.S. collect, together, almost four times more fees from orders as they do from trades.[44] While pegging can add to overall market liquidity, there is very little additive value when it comes to RTMD. Permitting marketplaces to collect significantly more money to provide order quotes, which already exists, and could effectively provide an incentive for marketplaces to create a business that simply replicates order quotes, and provides little or no trades.

MARKETS	TRADE AVERAGE	ORDER AVERAGE	DIFFERENCE (ORDER-TRADING)
MEMX	3.5%	7.0%	3.5%
MIAX	0.8%	4.4%	3.6%
LTSE	0.0%	4.6%	4.6%
Total	**4.3%**	**16.0%**	**11.7%**

A similar issue exists in Canada as evidenced in the order/trade ratio table above (at the bottom of page 21). Using IIROC published data, total messages less trade messages are divided by trade messages, which provides the number of orders needed to create a trade in each of the lit markets. The lower number reflects higher order quality (orders which are executed always have a higher value than orders which are not executed). Therefore, good order quality should be factored into the DFM and poor order quality should not be rewarded with higher order revenue.

[44] UTP Revenue Disclosure Q3 2022, CTA Disclosure Q3 2022.

Segment the markets by capitalization of listed issuers. The market analysis for orders and trades should be separated into segments to permit appropriate incentive and value assigned to provide market data on small-cap companies.

The U.S. SIP uses four market segments.[45] TMX proposes the following three market segments:

1. 0-60 largest market cap listed issuers
2. 61 - 300 largest market cap listed issuers
3. 301+ largest market cap listed issuers

QUESTION #4: Is the application of the DFM appropriate for both senior and venture market data?

No, it is not appropriate to apply a single, consolidated DFM to both senior and venture market data. Given the difference between the two types of markets, including the level of activity and scale and their respective pre- and post-trade metrics, it is not conceptually sound to apply one DFM to both senior and venture market data or to apply a single comparable to both. As is true in every other jurisdiction, there should be separate fees and DFM for senior and venture market data. However, TMX does believe that a DFM is needed for all markets providing market data.

To highlight this point, in Canada, only TSX, Alpha and Nasdaq have a separate fee for venture market data. On average, these marketplaces charge approximately 52% of the TSX fee for the venture market. As a result, the regulators can easily access the relative price charged by these marketplaces for venture market data. By segmenting data for these markets, clients are free to decide which market data best suits their needs. However, all other marketplaces charge a fee for both markets combined in Canada. In addition to limiting the options available to clients, this approach makes it difficult for regulators to determine how much of the fees to allocate to each market.

Applying the DFM based on the level of activity of the senior market, where marketplaces have consolidated fees, disproportionately undervalues the venture market data and renders the comparison meaningless.

[45] *Supra* note 34.

QUESTION #5: Should the application of the DFM be extended beyond subscriber fees? For example, should the DFM be applied to non-display and distribution fees (whether internal and/or external distribution fees) given the potential challenges noted above?

No, TMX does not support a DFM with an extended application beyond subscriber fees. For Commercial Data Users, particularly international clients, extended application of the DFM is conceptually unsound and commercially unwarranted. As explained below, applying a DFM with an extended application would have the effect of requiring TMX to provide relief to Commercial Data Users to mitigate the existing practices of other marketplaces. More significantly, applying extended DFM to international clients would have the unintended consequence of disincentivizing efforts to attract foreign investors, contrary to the public interest in encouraging the growth of a deep and liquid Canadian capital market.

QUESTION #6: What are the potential benefits or risks of making the fee ranges calculated under the DFM transparent? Should there be greater transparency of other inputs to the DFM (e.g., reference points or key input metrics)? If so, please comment on the potential benefits and risks.

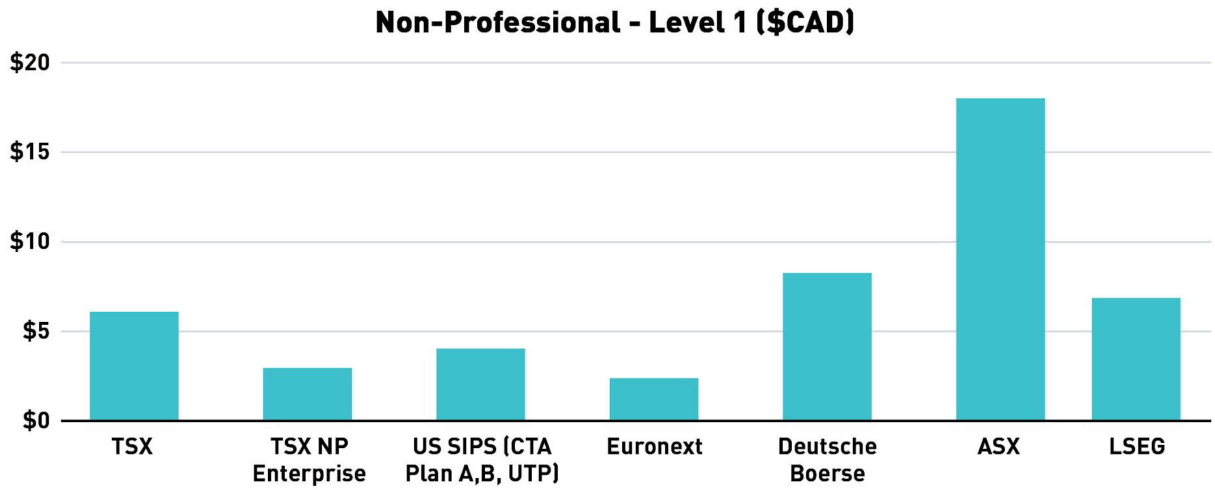
TMX supports a more transparent DFM. The DFM should be simple, straightforward and not subject to bias or gaming. If full transparency is achieved in the DFM, then marketplaces, clients and the SRAs can make informed decisions and incur fewer due diligence-related costs. A simplified DFM will lead to greater market certainty regarding the accuracy and fairness of the DFM. As is noted in our response, any changes to the DFM should be subject to recommendations of the Blue Ribbon Panel, taking into consideration industry stakeholders internationally.

QUESTION #7: Should we consider adopting a methodology for non-professional subscriber fees? If yes, what should be factored into such a methodology? If not, why not?

No, a DFM for non-professional subscribers is not required because the overwhelming number of non-professionals receive RTMD through external distributors. TMX, by way of an example, distributes RTMD to the vast majority of non-professional users in Canada through external distributors, and offers these external distributors enterprise programs that provide discounts of between 10% and 60%. As a result of this market-based solution, over 99% of all non-professional subscribers are now receiving RTMD.

A DFM for non-professional subscriber fees is unlikely to result in an improvement for non-professional subscribers over the current market-based practice and could possibly result in a DFM fee being higher than the current market-derived price currently available. If the non-professional DFM price were higher, it is likely that, due to global competition the (lower) market price would, as a commercial matter, prevail, rendering the non-professional DFM irrelevant.

Further, the non-professional market is an example where costs have come down domestically over the years and by international standards, are relatively low. As noted in the table below sourced from publicly available websites of the various exchanges, TMX provides some of the lowest market data fees for non-professional subscribers.



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

QUESTION #8: Should standardized key terms and definitions, such as professional and non-professional users, be developed for the access to, receipt, distribution, and use of RTMD products? If yes, please explain what the benefits of such an approach would be. If not, please explain why not.

Standardized key terms and definitions should be developed and adopted for the access to, receipt, distribution and use of RTMD products. To date, the market has made significant progress with the introduction of standardized key terms and definitions. TMX has introduced standardized terms that are addressed by marketplaces globally, all resulting in a reduction of the administrative burden to market data users worldwide.

By way of example, TSX has introduced a standardized definition of "non-professional subscriber" adopted by marketplaces in Canada and generally adopted internationally (outside of the U.S.), resulting in all accounts of direct trading firms designated non-professional subscribers, increasing efficiency and reducing the administrative burden related to the access to and use of consolidated RTMD worldwide. TMX feels that creating an all inclusive non-professional subscriber definition has helped the direct investing providers to widely distribute RTMD to retail investors (the TMX definition states that any users using RTMD other than for their employment will be considered a "non-professional"). In addition, TMX launched a non-professional enterprise fee program that stated that all subscribers that use our market data other than for their employment are considered "non-professional". By using this definition of "non-professional" subscriber, TMX has been able to reduce the burden for the direct investing market.

QUESTION #9: What other key terms and definitions should be standardized? What factors or industry legacy issues should be considered in standardizing such terms?

The standardization of terms and definitions by Canadian marketplaces requires the cooperation of international exchanges. Since 2019, the Financial Information Services Division ("**FISD**") has brought together a cross section of international exchanges (including TMX, which is also a member of the committee) to review the common terms and definitions to understand how these terms and definitions can be standardized for the benefit of consuming firms.[46] While the work remains ongoing, substantial progress has been made by FISD and a best practice guide has been published,[47] which most international marketplaces are encouraged to follow. FISD expects that this effort will enable it to meet its mission statement, being *"FISD is the global forum of choice for industry participants to discuss, understand and facilitate the evolution of financial information for the key players in the value chain including consumer firms, third party groups and data providers. It is a dynamic environment in which members identify the trends that will shape the industry and create education opportunities and industry initiatives to address them.*

QUESTION #10: Would this approach help address market participants' concerns with respect to the administrative burden related to the access to and use of consolidated RTMD? Please explain your answer.

Standardizing terms and definition is generally of value when clients take a data feed and compare the terms and definition to other international marketplaces. For this standardization to be effective (and TMX has been an active marketplace in these discussions) marketplaces internationally must work together in an open environment, and within the parameters of applicable law, including competition legislation.

Domestically, the issue of standard terms and definitions comes up mostly with the IP where seven marketplace groups have their own agreements. Therefore, a firm using the IP must sign at least seven agreements each with their own terms and definitions. The CSA has correctly identified this as an administrative burden. Subject to the recommendations of the Blue Ribbon Panel, TMX would support: (a) a common agreement going forward for clients of the IP and would be prepared to work with the other marketplaces to create one common agreement for clients of the IP; and (b) one standard audit/year end reconciliation for all IP clients. In TMX's experience, these are two changes encouraged by international IP clients, representing approximately 85% of all IP clients.

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[46] Note this work was done with the oversight of competition lawyers.

[47] FISD Best Practice Recommendations.

QUESTION #11: What would be the unintended consequences, if any, of standardizing these types of key RTMD terms and definitions?

Further work to standardize key terms and definitions with the cooperation of marketplaces internationally would be helpful. As is noted in our response, the introduction of additional standardized key terms and definitions should be subject to recommendations of the Blue Ribbon Panel, taking into consideration industry stakeholders internationally.

As is noted in our response, proposals to substantially alter current commercial agreements must be grounded in a robust and early analysis of the costs and benefits of the proposal. It is our position that the CSA should not look to revert a practice that has been fixed and accepted widely by clients. Focus should be spent on areas where clients are experiencing challenges in access, cost or policies. Forcing new standardized terms for Canada, which are against the direction of all international marketplaces would unnecessarily complicate the Canadian market by, among other things, adding risk and expense to marketplaces to monitor and track the difference in terms, definition and policies.

B. Longer-term Options

Before responding to specific questions regarding the longer-term options presented in the Consultations, we thought it would be helpful to share some background on, and our experience operating, the current IP.

Today, TMX operates the IP in Canada. The IP currently distributes various data products including the Consolidated Best Bid and Offer ("**CBBO**"), Consolidated Last Sale ("**CLS**"), and Consolidated Data Feed ("**CDF**"). The collective Canadian market should be proud of the accomplishment as Canada is the only market in the world with a Level 2 consolidation service.[48] The IP has effectively been a marginal business that has generally operated at cost ever since it was started back in July 1, 2009.[49]

As mentioned above, today, over 85% of IP revenue comes from international clients and international data vendors who are Commercial Data Users subscribing to the IP in order to access additional marketplace data, without the technical and logistical concerns involved with accessing marketplace direct fees (e.g., network, firewall, hardware, security, co-location space, etc.). Most of these international clients are extremely large international firms with relatively small Canadian trading requirements. Without a Canadian presence, these international firms have no reason to take both a direct marketplace feed and the IP feed.

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[48] In Europe, TMX understands that the introduction of their Level 1 consolidated model will not be ready for customer use for at least another three years. TMX has operated the IP since July 1,2009. See [CSA Staff Notice: 21-309 *Information Processor for Exchange-Traded Securities other than Options*].

[49] Individual display access and data feeds are billed today by each marketplace, known as a "Cost Pass Through" model. The license to use the CBBO Level 1 and CDF Level 2 and CLS feeds are priced at $540/month, $1,000/month and $540/month respectively. This feed, charged to clients by TMX, is meant to cover the cost of managing the IP.

Conversely, domestic Regulatory Data Users, being primarily Canadian banks, high HFTs, and trading system providers, already have data feeds from the marketplaces for their order routing and trading. Therefore, these Regulatory Data Users do not use the IP consolidated feed, but rather use the existing data feeds from the marketplaces to create their own internal consolidated products at no additional cost.

Challenges faced

In consultation with market participants, TMX has and continues to address the challenges faced by market participants in receipt of the IP including with respect to cost and administration.

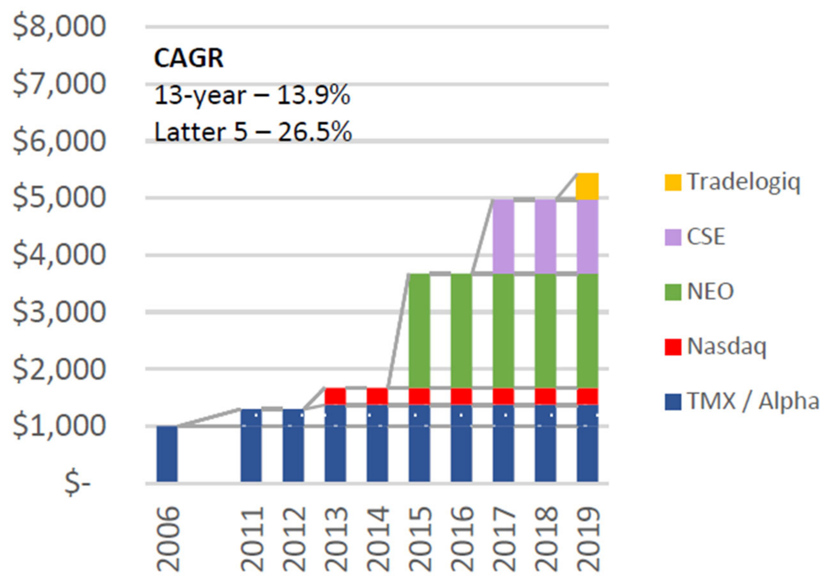
Administrative challenges (including audit process)

Although the technical aspects of the IP work well and the cost of indirect fees are relatively modest and very stable, both the CSA and most international clients have highlighted the administrative challenge in obtaining data from the IP. As mentioned above, subject to the recommendations of the industry stakeholders and the Blue Ribbon Panel, administrative modifications to the existing IP model, such as establishing a single form of agreement to access RTMD from the IP, may be an area that can be readily addressed with no apparent downside.

Cost to Canadian broker-dealers

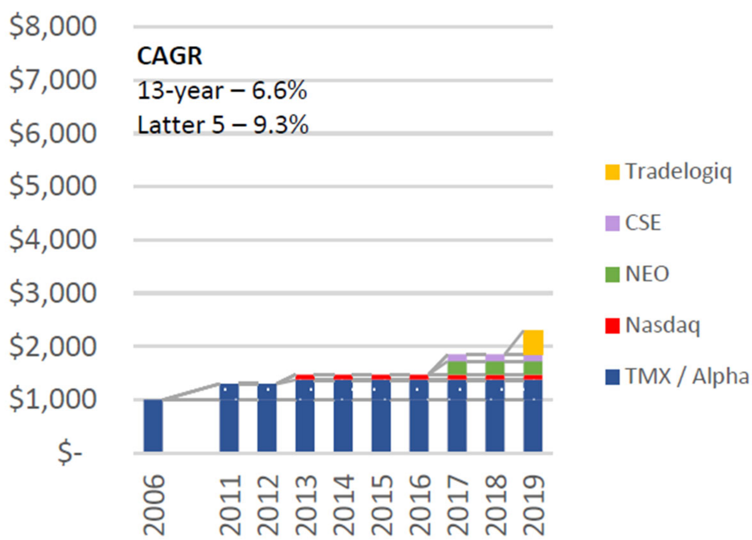
The CSA analysis, set out in Figure 24, below, accurately highlights the cost of direct marketplace feeds:

Figure 24 - Level 1 - Direct



However, as noted above, Commercial Data Users, primarily international clients, will almost always take a data feed from a data vendor (referred to as an “indirect feed”), and thus their costs are accurately highlighted in Figure 25:

Figure 25 - Level 1 - Indirect



A number of observations can be made:

The TSX Level 1 distribution fee did not change from 2006 to 2019, despite the cumulative effects of inflation. Since most international firms only use TMX data feeds, the other marketplaces have imposed very minimal fees into their indirect fees.

Comparison of global consolidated tapes to current TMX services

A number of references have been made between the traditional TMX level 1 RTMD and level 2 RTMD to the various consolidated tapes in the U.S., Europe and the U.K. The chart below summarizes the key differences in the various data options in each applicable jurisdiction. The TMX service is at the top of book 98%, and it contains odd-lot data estimated to be around 11%, and opening and closing auction data, which is estimated to be about 1% to 2% and 10% to 15%, respectively.

The Canadian IP is the only service globally with a Level 2 RTMD offering. While this fact is well known, what is not well understood is how this compares to the level of consolidated services internationally. Level 1 services internationally do not have a consolidated bid and ask size because they are built on Level 1 software. For instance if 10 bid orders make up the best bid, then only the oldest order at the top-of-book will be shown. This is the main reason why odd lot data has traditionally not been included in consolidation services, that is in the past, clients were reluctant to have an odd lot order alone as the top of book quote.

	TMX				
Consolidated Tape - Level 1	98% TOB	2010	2005	ETF estimated 2025, Shares estimated 2026	**
Consolidated Tape - Level 2	98%	2010			
Annual Operating Cost[50]		Undisclosed*	$27M USD	Estimated 16M Euros	
Listed Companies[50]	3,534	3,534[51]	8,338	2,149	1,606
Top of Book consolidated Volume[50]	✓	✓	✗		
Odd lot % trading not included[50]	✓	11%	22%		
Auction data[50]	✓	✗	✗	✗	✗

* Technical Consolidation Processor only.
** TMX understands that these items remain subject to ongoing discussions.

[50, 51]

In addition to the concerns communicated by international clients on the IP's administrative challenges, the following concerns regarding the IP are also common among international clients:

- keep prices low (either flat or below inflation);
- keep prices competitive with international exchanges;
- automate the reporting of accesses; and
- have invoices billed and paid in USD.

TMX has, over the last three to five years, thoroughly considered and addressed all of the above noted concerns and will continue to be responsive to client concerns.

[50] *Supra* note 21, See also Phil Macintosh, "SIP Accounting 101", Nasdaq, "The study on the creation of an EU consolidated tape", "TMX IP Canadian Best Bid and Offer (CBBO)", "SEC Adopts Rules to Modernize Key Market Infrastructure Responsible for Collecting, Consolidating, and Disseminating Equity Market Data".
[51] Excludes listings from other Canadian exchanges, which as at December 31, 2022, totaled 941 listed companies.

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

QUESTION #12: Would caps on fees charged by marketplaces for their RTMD consumed through the consolidated TIP products affect the consumption and use of consolidated RTMD? If so, how? If not, why not, and are there alternatives that should be considered?

Although the IP is unique, we estimate that half of all Canadian broker-dealers, and most data vendors, create their own consolidated products using existing feeds received directly from the Canadian marketplaces. Accordingly, there may be options for consolidated products available in the market.

The fundamental problem with imposing the proposed cap on fees charged by marketplaces for their RTMD consumed through consolidated TIP products is that it may inevitably lead to a cumulative fee for the TIP products.

Imposing a cap on fees for RTMD consumed through a TIP model may result in potential cost savings for Regulatory Data Users required to obtain Level 2 data from all marketplaces to satisfy their regulatory obligations. However, there is no assurance that these cost savings would be passed along to their customers. As mentioned above, it has not been demonstrated that capping fees are necessary or the optimal means of achieving that result. To reiterate TMX's position, whether such a solution is necessary or appropriate for the Canadian financial ecosystem should first be considered by the Blue Ribbon Panel before any such solution be recommended, or implemented.

QUESTION #13: Under this approach, do you believe data vendors would begin to offer TIP-based products and pass cost savings on to the end user? If not, what drivers would be necessary to encourage this? Do you envision any potential unintended consequences under this approach?

Market data vendors may offer consolidated products that they have created, but there can be no certainty that they would do so. To date, market data vendors have resisted any efforts in being a consolidated product provider. Data vendors are global firms that will not prioritize the substantial costs associated with TIP-based products over other potentially more financially lucrative development projects. For data vendors, development and network implementation costs of TIP-based products could be substantial. Given the cost of development, it is highly unlikely that end users would experience any cost savings if a data vendor would offer TIP-based products.

It would be inappropriate to offer incentives to data vendors to offer TIP-based products. This runs contrary to free market principles and any such incentive will be viewed as tax on the industry, ultimately paid by the client.

QUESTION #14: What means of establishing caps and what factors for establishing cap levels should be considered?

As discussed in our response to question 13, establishing caps would be unlikely to result in cost savings and it would be unlikely to result in TIP-based products being offered by data vendors. Before proposing any policies regarding caps, a thorough cost/benefit analysis must be conducted. Any consideration of imposing caps must be done carefully and only after an industry consensus that this approach is warranted and desired. TMX suggests that this issue be assigned to the Blue Ribbon Panel for further exploration and that the first step in its consideration be to undertake a cost-benefit analysis. It would be an error to immediately conclude that a fee cap would result in cost savings for end users.

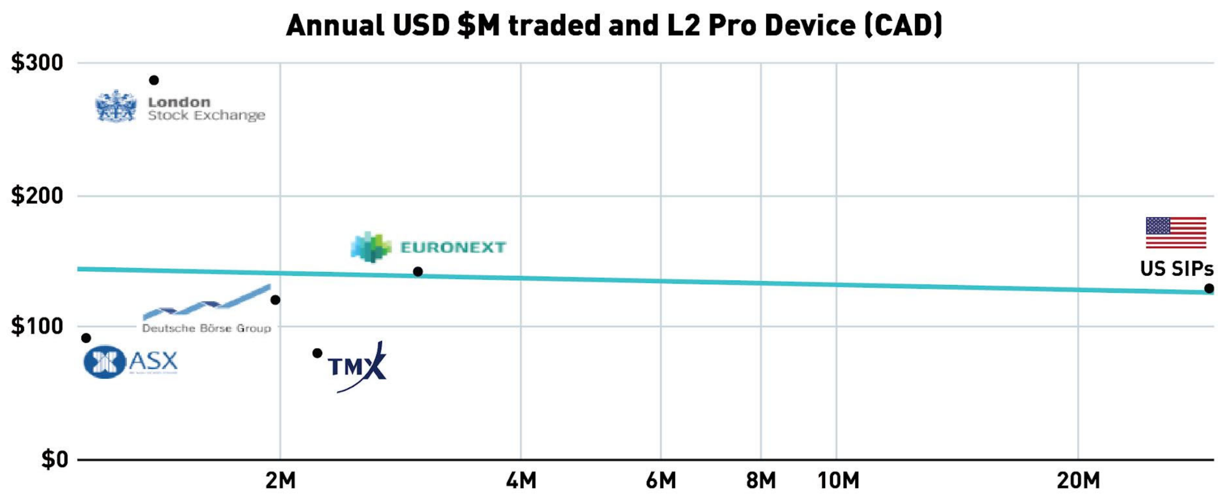
Consideration of the costs and benefits of any cap on fees charged by marketplaces for their RTMD consumed through the consolidated IP products should take into account the following factors:

(a) Any caps should be based on the Level 1 and Level 2 international senior listing benchmarks, normalized into Canadian dollars, both on an absolute and relative basis (trading value); and

(b) The trading value needs to be logarithmic scale as any non-US exchange could not operate on a fair basis. Once the senior listing market fees have been determined, caps can be determined in other Canadian marketplaces based on orders (time alone at the top of book/listing segment) and trades (value traded/listing segment).

As set out in the graph provided below there are many senior exchanges that do not provide sufficient value for fees charged based on annual USD traded,[51] whereas others provide good trading value based on the fees charged. For certainty, TMX always endeavors to provide the latter by a sufficient margin.

[51] Annual USD traded as provided by the World Federal of Exchanges. Fees charged for Level 2 RTMD is as per the publicly available websites of the marketplaces.


Annual USD $M traded and L2 Pro Device (CAD)
$300
$200
$100
$0
2M
4M
6M
8M
10M
20M
London
Stock Exchange
EURONEXT
US SIPs
Deutsche Börse Group
ASX
TMX

(b) Introduce a new model for data consolidation through the use of an Admin IP.

(i) Admin IP

QUESTIONS 15-17: Our responses regarding the appropriateness, key benefits, challenges, unintended consequences/risks and other key responsibilities of an Admin IP model for Canada are provided below.

Performing the functions of an Admin IP involves both technical and administrative costs. In the U.S., the estimated cost of providing a consolidated service for the SIP is around US$27 million per annum[52] (or approximately 7%).[53] In Europe, we estimate the annual cost of providing a consolidated service to be approximately €8 million - €10 million (or approximately 8%). It is questionable that a Canadian marketplace will agree to take on additional responsibilities at a similar cost. Generally, the cost of the technical versus administration is approximately 50%.[54] Should an Admin IP model be imposed on the Canadian market, the administrator will face significant cost concerns. Since the administrator portion is not performed in Canada today, introducing this responsibility will represent a tax on the industry.

Although imposing an Admin IP model may bring cost savings to some segments of the market, it would impose substantial administrative costs and burden – e.g., setting the RTMD fees, developing contractual terms to govern access to the consolidated RTMD and standardizing consolidated RTMD products. This added cost imposed on the Admin IP, should such a model be adopted, may be a disincentive for any large independent firm to consider the role.

TMX currently absorbs the costs of administering and operating the IP. Moving to an Admin IP model would increase costs which could essentially be seen as a new tax on the industry. The significant costs to establish an Admin IP in Canada will be borne by a far smaller securities trading sector, relative to other jurisdictions. An analysis would need to be done examining the cost and resources required for the Admin IP model and whether it is rightly-scaled to the size of, and ultimately be a benefit to, the Canadian market.

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[52] Phil Macintosh, "SIP Accounting 101"at Chart 3.

[53] *Ibid.*

[54] The UTP Administrator, a role identical to the CTA Plan A and CTA Plan B, performs the administrative function of the UTP facilitating payments to the individual participants of their proportionate shares of revenues and provisioning of certain documentation necessary to prepare related tax returns. The UTP Administrator is also tasked with, among other functions, management of the receipt, use and/or redistribution of data feeds by data vendors, including the process of approving applications submitted by potential data vendors and administration of applicable vendor agreements and end user contracts; responding to client inquiries and client communications; conducting audits of data vendors and the administration of the applicable operating committee. See UTP Administrator Disclosure Form.

(ii) Single vs. Multiple TIPs under an Admin IP Model

QUESTION #19: Based on the size and scale of the Canadian market, should the CSA consider allowing for multiple TIPs to operate under the Admin IP approach?

It is highly unlikely that there will be commercial interest in providing a competing TIP (absent market-distorting incentives). Even in the U.S., where the market is vastly larger than Canada, we understand that there does not appear to be enough interest in competing market data consolidators. Given the size of the Canadian market, it is unlikely that there would be sufficient incentive, financial or otherwise, for an entity to operate a competing TIP. Subsidizing a competing TIP would only add to industry costs. Accordingly, without subsidizing a competitor, it is unlikely that an entity would choose to provide a service competing with the IP.

A backup for the technical aspect of an Information Processor is similar to having a competing technical consolidator. In the U.S., the SEC has expressed interest in competing consolidators, but to date no consolidator has committed to be a competing consolidator. The hope was that a competing consolidator would drive out further latencies in the market and potentially lower costs. However, the latency improvement potential is extremely limited as are the financial incentives for a competing SIP.

QUESTION #20: Alternatively, should there only be a single TIP and, if so, should it be operated independently of the Admin IP?

There is no benefit of the TIP being separate from the Admin IP, given the substantial additional costs, service and support delays that would result from the two operating independently. Internationally, there has been no example of a separate TIP and Admin IP operating effectively.

As mentioned above, moving to a fully independent administrator will raise the cost, which will be ultimately borne by the client base.

QUESTION #21: If there is only a single TIP, should it operate as a for profit business or as a not-for-profit entity? Please explain your answer.

As mentioned above, the cost of the TMX IP has always been modest with the cost structure and the revenue charged for the service remaining flat and stable over the years. With the revenue of running the IP set off against its costs, the administration role would be an added cost to the industry and yet it might not be sufficient for any large independent firm to consider.

In addition, the U.S., like Canada, has raised the very real possibility that there are few firms with the necessary experience that would elect to perform the roles of both the TIP and Admin IP, for financial reasons and unwillingness to have its operation fully scrutinized and public. Without a secure funding model, there would not be any suitable firms willing to operate a TIP or the Admin IP, which could ultimately jeopardize the consolidated IP service.

General Questions

QUESTION #22: With respect to Staff Consideration 1, do you think that our review of RTMD costs and accessibility should consider the impact of regulatory requirements, such as OPR and best execution? What could drive changes in consumer behaviour (such as disconnecting from marketplaces that offer little benefit to the market compared with the costs or unprotected marketplaces)? What changes could impact the competition among data producers? What could incrementally increase consumer bargaining power? And ultimately, could any of these suggestions impact fees? Please explain your answer.

As explained above, broker-dealers responsible for order routing occupy a distinct category of market data consumers and rely heavily on Level 2 RTMD feed and non-display access. They have the view that they must acquire RTMD from all marketplaces in order to comply with their regulatory obligations, such as best execution and OPR. The CSA's review of RTMD costs and accessibility should consider these regulatory requirements and reforms that target Regulatory Data Users.

Ultimately, best execution for clients can only be achieved if all markets are accessible for trading. New or small venues can only exist if trading system providers carry their orders and trades. However, the trading system providers incur substantial costs and development efforts to onboard and maintain new market places.

We encourage the CSA to conduct further analysis and consultations on the impact of OPR and best execution on the cost of market data. While OPR and best execution may not be the sole factor contributing to the cost of data experienced by Regulated Data User, the regulatory obligations may be a factor that should continue to be explored. We would support the CSA working with the Blue Ribbon Panel to examine the impact of OPR and best execution on market data costs.

QUESTION #23: Would any of the options outlined above assist dealers with moving retail orders to other marketplaces during a marketplace outage?

TMX believes in the value of being able to failover to other marketplaces during an outage. However, we do not believe that any of the options outlined alone will assist moving orders. Direct investing trading sites and wealth management groups would need a way to automatically cancel all outstanding orders and reroute them to the order router so they could be routed to the best available marketplace.

V. Conclusion

TMX commends the CSA for beginning the dialogue on this complex topic through publication of the Consultation. We concur that the issues of access to RTMD should be examined, and that there is room for enhancements to the current arrangements.

However, TMX further believes that the approach to these issues must be nuanced, recognizing that for many, the use of market data is more a commercial consideration. For such users of market data, the best approach is, and remains, relying on existing competitive market forces. For those whose scope of market data use is determined by regulatory requirements, greater regulatory involvement and oversight may be appropriate. However, proposals to substantially alter the current arrangements must be grounded in a robust and early analysis of the cost and benefits of the proposal. Finally, TMX strongly supports the formation of a Blue Ribbon Panel composed of industry experts to consider and provide advice to the CSA on these issues in the first instance. We look forward to working collaboratively with other stakeholders to improve the regime for Canadian RTMD.

Sincerely,

"Michelle Tran"

Michelle Tran
President, TMX Datalinx