RE: CIX TRADING INC. NOTICE OF INITIAL OPERATIONS (ALTERNATIVE TRADING SYSTEM) AND REQUEST FOR COMMENT

January 5, 2026

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RE: CIX TRADING INC – NOTICE OF INITIAL OPERATIONS AND REQUEST FOR COMMENT

The Canadian Forum for Financial Markets/Forum Canadien des Marchés Financiers (the "**CFFiM**") is a values-driven, purposeful, and reform-minded organization. The CFFiM is dedicated to advancing initiatives that improve the health and competitiveness of Canada's financial markets for the greater good.

We offer the below analysis on the above reference notice as a solutions partner, to stimulate capital raising, regulatory modernization and inclusive growth for the national economic competitiveness needed to meet the next decade's challenges. We provide this analysis to enhance Canada's markets and maintain competitiveness for Continuous Book Interaction ("**CBI"**). Canada's equity markets must protect its unique liquidity traits against global competition while optimizing intermediation of labor, capital, and invention.

EXECUTIVE SUMMARY

The approval of this CIX Proposal as presented will further define Canada's market ecosystem to copy and compete on a U.S. basis, rather than solving uniquely Canadian needs.

CIX's Proposal introduces material risks such as free-riding on public quotes/National Bid Best Offer ("**NBBO**"), opaque algorithms, fractional share burdens on dealers/Fractional Liquidity Providers ("**FLPs**"), and fragmentation incentives, without fulsome cost benefit analysis that considers all market segments. Despite these risks, this proposal has been subject to an insufficient comment period which includes the holiday season.

A series of recommendations are provided aimed to avert irreversible fragmentation, safeguard price discovery, and enable a size discovery renaissance for corporate control markets in a manner that prioritizes Canadian liquidity advantages. These recommendations include the following:

- Event matches operating unprotected continuous markets, so as not to affect the national NBBO, with disclosure of the algorithms used.
- Fractional shares trading occurring only through dealer internalization.

- Trading hours restricted to 8:00 am – 5:00 pm.
- Very small trades (*de minimis* fills) excluded from public data feeds.
- Odd-lot trading limited to Tier I participants and the CBI.
- Market data for *de minimus* fills (fractions), excluded from market data feeds, consolidated at the Securities Information Processor ("**SIP**"), and not sold, in order to remove incentive for continued fragmentation.

The CIX Proposal should also be further revised to reflect the concerns raised in Schedule A.

A. MIMICRY OF US MARKETS

Over the past two decades, most innovation has concentrated on secondary trading within the segments of the market that are responsible for the greatest share of transactions by count, frequency, and volume—namely, the CBIs. This segment has also experienced the most significant global competitive pressures, particularly from interlisted activity. At the same time, Canada has historically stood out among comparable-sized economies by fostering capital formation for smaller public companies, creating a unique ecosystem that served as a feeder for higher-liquidity market tiers.[1]

As a result, the vast majority of the quantity of Canadian corporate trading names have the converse problem of the United States and the competitive pressures faced by CBIs. Illiquid, Tier III, securities have problems concentrating matching interest into price discovery leading to wider spreads and missed opportunity costs.

Hyper-liquid US names ("**FAANGs**")[2] have no parallel in Canada, as some of these singular issues (e.g. Nvidia) have market capitalizations greater than the entire Canadian equity marketplace (including all of our banks, insurance companies etc. combined). Trading these securities is not a function of price discovery, or even size discovery, but rather operational supply whereby 6.5 hours of a trading day at penny increments is not enough capacity to trade such hyper-active names. It is no surprise, then, that US efforts in equity markets are consistently focused on adding matching capacity.

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[1] Canada in effect has 3 radically different equity market pools:

Tier I: A highly liquid, deeply traded, mostly non-intermediated interlisted equity securities markets. Canada is the only nation in the world that has a freely traded "interlisted' market with the United States, the largest capital market in the world. Our large cap companies benefit from exposure and liquidity in the United States allowing their securities to trade as naturals. The global peer set of securities resembling the trading activity of these names would be S&P small and mid-cap companies. The interlisted capability is a unique and competitive advantage of our markets on a global scale.

Tier II: A liquid, intermediated, non-interlisted senior equity securities market, consisting of the majority of the non-interlisted names qualifying for listings on the senior toronto stock exchange and trading as tier I) liquidity security. The peer set for these companies would be commonly held equities which are domestically traded in markets such as Australia, Italy, and the Scandinavian countries. While not unique in and of itself, this tier of securities benefits from a highly competitive secondary trading mechanism, which itself is a unique asset to canada compared to economies of a similar size.

Tier III: An illiquid, Tier II security, heavily intermediated secondary trading of junior and venture-oriented equity securities which number in the 1000s across a variety of junior exchanges including TSX venture and the- CSE. . Market capitalizations range from 1/2mm to over $100mm. In this regard, there are almost no marketplaces in the world which are as properly regulated and as robust in providing primary financing opportunity to such securities with the breadth of activity as Canada. Likewise, this capability is also a unique and competitive advantage of our markets on a global scale. it is still admittedly challenged on a secondary trading basis.

[2] FAANGs (often stylized as FAANG stocks) refers to five mega-cap U.S. technology companies renowned for their extreme liquidity and market dominance: Facebook (now Meta Platforms), Apple, Amazon, Netflix, and Google (now Alphabet).

Yet, projecting the same perceived need of FAANGs for capacity to the need for Canada to remain competitive to the United States by introducing solutions for more capacity to trade for symbols that are non-intermediated, may have the unintended consequence of creating more problems for Canada's uniquely positioned Tier III securities.

Proponents of longer trading days and fractionalization may argue that these revisions will benefit Canadian markets by:

- Meeting the demand of overseas investors (primarily Asia given different time zones).
- Meeting the demands of a new class of retail investors and further democratizing small sized interest.
- Melding digital assets and all digital trading in securities (as F/X, many commodity, and crypto markets trade 24/7) into one continuous market.
- Attracting foreign issuers with the ability for them to trade during their time zones.

Market makers and automated traders may support such models as they will necessitate more automation while also positioning more flows from uninformed investors (or at a minimum, price insensitive flows with effectively zero information content) against their own orders. These benefits may well hold true. However, the extent to which the marketplace environment should adapt, and the resulting costs to the broader ecosystem, must be carefully balanced against the value of newly introduced features.

In following the US lead for its entire ecosystem, rather than for the segment that needed to follow, Canada has experienced similar results to the US in its marketplaces with:

- Declining new issuance[3]
- A reduction in the total number of listings[4] and
- Less liquidity for public equity risk capital at size.[5]

While CBI segments may need to align with U.S. competitive dynamics, the remainder of the market, particularly liquidity-sensitive issues, requires protection.

B. THE IMPACT OF SMALL SIZE EXECUTIONS

The CIX Proposal states: "ASPEN VERT also offer trading in fractional quantities of less than one whole share (CIX Fractional Trading)."

Mixed lot limit order book and fractional shares do not represent the minimal investment required to be availed of protections. A push to fractionalization of investor interest at the marketplace level rather than at the dealer level will further fragment liquidity in a mostly illiquid Canadian marketplace.

[3] New listings and IPO proceeds on TSX/TSXV have trended downward since the early 2000s, dropping from peaks of ~CAD 10-15B annually pre-2008 to CAD 2-5B in recent years (e.g., 2023-2024), akin to U.S. patterns post-SOX where smaller issuers shifted to private markets: Statistics Canada Securities Statistics, First Quarter 2025

[4] Ibid. Total annual listings fell from 200+ in the 1990s-2000s to under 100 by 2024, with TSXV delistings outpacing additions; U.S. exchanges show parallel contraction outside megadeals.

[5] Liquidity for mid- and small-cap public equity (non-CBI) has fragmented, with average daily volumes per issue declining 20-30% over two decades amid HFT focus on hyper-liquids, straining risk capital at scale—mirroring U.S. "liquidity illusion" critiques: CIRO Market Share Report for Fourth Quarter 2024

One of the fundamental changes in modern market micro-structure led by the US over the last 20 years has been the move from larger "block" sized executions to smaller and smaller execution sizes. Average trade sizes on Canadian exchanges have declined significantly over the past two decades.[6] This has been a consequence of a continual rule-setting process that has favored small-sized executions:

- Best price obligations which allow a board lot to set the price for large blocks with lower risk than demonstrating size.
- Order exposure rules which as well as providing immediacy of execution to retail flows also require institutional sized matches to "walk-the-book" if priced outside the quote.
- A litany of contingent, dark, partly hidden, discretionary order types which create a tentativeness to size discovery.
- Decimalization.
- Reduced latency.

A market makers' (or liquidity providers') economic goal is to generate spread revenue from at least two executions, buying at the bid and selling at the offer, over time. Large movements in price, or the inability to move size, represent risk. The described factors enable liquidity providers to access and execute against greater addressable liquidity over a fixed period, while exposing less capital to risk at any moment—a core objective of CIX match events, which limit momentary capital demands to within providers' risk tolerances. Liquidity providers thus optimize capital deployment, enhancing market efficiency without heightened exposure. This efficiency holds provided the active liquidity consists of smaller sizes lacking informational content, as detailed further in this correspondence.

There is a distinction between the price of convenience and the price of corporate control. In every good or service, those trading in significant size generate a large premium (or discount),depending on the point of view of the buyer or seller, as opposed to smaller retail size. The same holds true when an entire enterprise, or control block of an enterprise, is sold, as the cost of corporate control has a price.

Order books, unfortunately, no longer seek to discover the price of corporate control (or long run value of the enterprise to risk capital itself) but rather seek the price discovery of smaller continuous flow. The cost of corporate control and its value are more discrete and discontinuous, and marketplaces can generate more revenue focused on continuous flow.

The goal of exchanges had traditionally been to be a meeting point for capital, invention, and labor to meet and create new enterprises which would further the economy through capital formation. But by altering the gap between the continuous flows and discontinuous corporate control, buyers and sellers of corporate control blocks find it harder to meet, and a tremendous opportunity cost is introduced as the spread is too wide to cross.

[6] Retail participation and algorithmic trading have fragmented order flow, reducing average execution sizes from levels around 500-1,000 shares in the early 2000s to often under 100-200 shares today on TSX and protected markets. This shift aligns with global trends but is pronounced in Canada due to decimalization in 1996 and rising high-frequency trading. TMX Group daily reports show average trade sizes of 324 shares (May 2, 2025) and 353 shares (July 16, 2025) on the TSX, often equating to roughly one board lot (100 shares standard for most symbols) plus an odd lot on protected markets: TMX Daily_Trading_Report_2025-05-02. While exact 2005 figures are not directly quoted in public summaries, the ~10x drop from early 2000s levels (500-1,000+ shares) to today's 300-range aligns with TMX consolidated statistics showing rising transaction counts amid stable-to-growing volume, implying smaller executions. July 2025 averages reached 355.6 million daily volumes with 957,522 transactions: TMX Consolidated Trading Statistics - July 2025.

To the extent that order books have been diminished into price discovery mechanisms for the price of continuous convenience of small sized, information-less active flows, rather than a mechanism to discover the price or cost of corporate control, the unintended consequence since the progression of this modern rule-setting since 2005, has been a marked drop in bought deals, private placements, new issues and most forms of equity financings on a broad basis. This has been a core contributor to the capital formation crisis in Canada - by favoring one set of investors and one form of price discovery over another, the larger pools of capital that would form, seek other venues to do so – overseas, in private markets or in non-equity securities.

Over time, the move to a minimum order size of 1. and fractionalization will:

- Result in average execution sizes below 1 board lot.
- Exacerbate the difference between the price of continuous flows and the discrete cost of corporate control as the reference prices for the vast majority of investors will be on the price of convenience.
- Tighten spreads with de minimis risk for marginal market makers, but order-to-trade ratios will surge non-linearly, rendering visible quotes unrepresentative of true market depth.
- Increase order quantities by orders of magnitude , overwhelming systems as message traffic shifts from millions to billions daily, mirroring U.S. SIP strains during high-volatility events.
- Escalate clearing costs due to heightened post-trade processing volumes.[7]

Importantly the pressure and challenge of moving larger block sized orders without market noise may develop to further force block liquidity into passive (ETF) like vehicles that do not underwrite new issues.

The CIX Proposal also states that the purpose of this proposal is "enhancing market efficiency, improving liquidity, and increasing accessibility across investor segments." In summary, it may only do so for the investor's smallest sized orders, and for a market maker / liquidity provider willing to address the most minimal of risk capital in odd lots and fractional shares at times with minimal activity. It risks harming institutional liquidity and the price discovery process, further bending the market into passive vehicles and away from capital formation, as the more challenging unintended consequence.

Recommendations

The *de minimus* aggregate benefit to any investor availing themselves of these tools (in fractions of a penny per fill for fractions of a share) is far outweighed by the aggregate damage to the market ecosystem.

Fractional allocations should be limited to a dealers' retail desks' allocation to individual investor accounts after they have consolidated orders, in the dealers' internalization systems. Investors with such a *de minimus* "investment" in a security and the market-place should not have the same traditional expectations of protections if they will not contribute to price discovery, size discovery, and discovery of interest in the market for corporate control. Price is a fundamental mechanism of capitalist systems and fractional shares should never set last sale price. Order sizes of less than $10 or even $1 should not represent the value of billion-dollar corporations.

Odd lots and fractional lots should have the same expectation to fill at NBBO as they have on primary CLOB venues. This is not a problem which needs solving at the marketplace level.

[7] Surveillance expenses may balloon from exponential data ingestion and pattern analysis needs. SIP maintenance costs could multiply significantly to handle the non-linear throughput demands, straining infrastructure budgets across exchanges and regulators.

C. EXTENDED MARKET HOURS

Elongating any trading hours beyond the current extended session to 5pm requires broader consideration due to both the operational complexity and the potential information asymmetries that may be consequently introduced. Stretching the trading day may enhance liquidity by extending it across a longer period (effectively creating trading supply) rather than concentrating it, but it will not serve all securities properly. Elongated trading institutionalizes advantages for high-frequency players during low-visibility periods, eroding "breathing room" for fair digestion of material events. It risks incenting the fractionalization of liquidity, fragmenting or concentrating size discovery for illiquid names.

Thin off-hours liquidity (e.g., Nasdaq's 0.2% overnight volume in 2025[8]) exacerbates spreads, flash crash risks, and informational asymmetries on after-hours news (earnings, M&A, systemic shocks like 2008 Lehman or COVID). Market unpreparedness risks disproportionate burdens: e.g. discount platforms face intensified automation demands favoring market makers and proprietarydesks over retail; CDS requires settlement/clearing upgrades for continuous processing, corporate actions, and error handling.

An elongated trading day will also nudge Canada into the inevitable 24-hour trading cycle for some securities, but without fulsome considerations necessary to ensure appropriate oversight. Almost all of the issues associated with the CIX' proposed elongated hours from 7am to 8pm, are also associated with 24-hour trading and could set precedent for how various issues are treated in a round-the-clock environment. 24-hour trading is gaining momentum in major U.S. exchanges, compelling Canadian interlisted stocks on the TSX to follow suit for competitiveness. Nasdaq targets 24/5 trading by late 2026, pending regulatory approvals, while NYSE Arca seeks SEC clearance for 22-hour daily operations (1:30 a.m. to 11:30 p.m. ET) starting end-2026, supported by DTCC's Q2 2026 clearing extensions.[9] Major U.S. discount brokers like Robinhood, Interactive Brokers, and Charles Schwab offer 24-hour trading for select U.S. stocks and ETFs, with platforms accessible to Canadian clients. Robinhood provides overnight trading (8 p.m. to 4 a.m. ET) on over 900 securities for U.S. and Canadian users. Interactive Brokers enables extended and overnight access via its Canadian entity, covering U.S. equities nearly 24/5. Schwab supports 24-hour trading through its think or swim platform, available to Canadian account holders.[10]

Recommendations

The CIX elongated hours proposal, and anticipated 24-hour trading debate, offers regulators an opportunity to conduct a unified review process for all non-core-hour extensions (e.g., evenings offsetting traditional sessions), minimizing redundant consultations. Outstanding operational considerations are included in Schedule A.

In addition, any credible cost-benefit analysis of elongated trading hours must prioritize whether this feature dilutes liquidity concentration during core business hours (9:30 a.m.–4 p.m. ET), merely shifting rather than creating net liquidity.

The following considerations are also recommended:

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[8] NASDAQ: Looking all Day for Data on 24 Hour Trading, July 31, 2025; Nasdaq Listing Center. (2025). *SR-NASDAQ-2025-106: Nasdaq Equity Rules — Section 20 Customer Disclosures*. In Rulebook(p. 91). Nasdaq. *"…extended hours trading involves material trading risks, including the possibility of lower liquidity, high volatility, changing prices, unlinked markets, an exaggerated effect from news announcements, wider spreads…"* , Nasdaq's own discussion of low overnight activity highlights that most traders and market makers are absent, implicitly creating *greater asymmetries in how information is incorporated into prices*, NASDAQ, Concentrating on Overnight Stocks, September 18, 2025.

[9] DTCC Plans to Offer 24 Hour Equities Clearing in Q2 2026

[10] Bankrate: Investing/24-hour-stock-trading

- Concentrating two-sided liquidity for capital issuance aligns better with Canada's labor, innovation, and public market needs than fostering thin, proprietary -dominated venue. Requests to extend hours for U.S. competitive pressures on inter-listed symbols need not extend to Canada's majority semi-liquid or illiquid securities. Active, natural order flow proves more resilient to overnight volatility than speculative, arbitrage, or market-making activity.
- CIX/CIRO mandates robust halts, disclosures on liquidity costs, and stress testing to avert precedents forcing 24/7 asymmetry.
- A move beyond current 5pm end of the day should not occur until a framework for continuous 24-hour trading is established.

D. CONTINUOUS MARKET PRICE DISCOVERY

The CIX Proposal states: *"*As ASPEN and ASPEN are very near continuous limit order books with periodic matches, they are not considered to offer "automated trading functionality", and an order on ASPEN and on ASPEN VERT will not be a protected order as such term is defined in National Instrument 23-101 Trading Rules.

The CIX Proposal does not meaningfully promote continuous trading; instead, it introduces fragmentation and complexity into the market. This added complexity risks widening the gap between what is required to participate as an informed investor versus as a professional trading intermediary, and it may further entrench advantages for proprietary trading firms by relying on undisclosed and opaque algorithms.

Special terms books acceptably free ride off the continuous market's price discovery without contributing to it as they contribute to other hard to match opportunity costs. A market which characterizes itself as "not" continuous for marketing and regulatory purposes, would not necessarily be exposed to the same rules as a Central Limit Order Book (CLOB), and rather expect to be treated like crossing mechanisms, special terms and unprotected markets. Most importantly, its clients and liquidity providers may be able to treat orders sent in this direction differently than they would for sending orders to protected markets. This would have real world practical and economic impacts.

The CIX Proposal also states: *"*In the ASPE and ASPEN VERT books**,** the Match Event Intervals range from 150 microseconds to 900 microseconds. These are customized for each security but predetermined for each trading day. For example, on a given day, the match event time for XYZ stock might be set between 450 microseconds and 600 microseconds. The actual match time is randomly chosen within this time range during the trading day. Any order for a security that arrives prior to a Match Event for that security (and that has not been canceled, become unmarketable, or been repriced prior to the Match Event) will be eligible to participate in that Match Event."

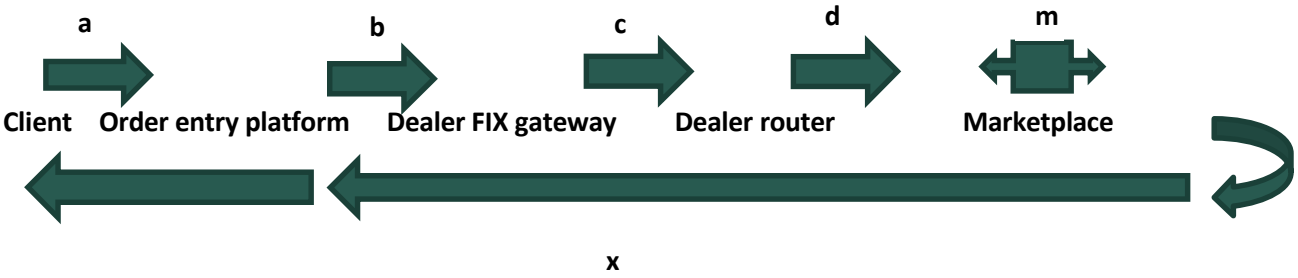
Rather, the CIX appears to be matching individual orders based on a CLOB methodology and randomly delaying the execution matches, with speed bump effect. The relevant context of this proposal is set out below.

The Practical and Economic Realities of Latency

A perfectly continuous market is one where in theory all latency is zero. Intent, order entry, execution, and information dissemination are frictionless, and information is perfectly disseminated across all channels such that perfect information exists.[11]

[11] Expectations change over time - what 'feels' like continuity evolves. The Toronto Stock Exchange reported roughly 13.6 million transactions in Q1 2005: TSX Group Inc. Q1 2002 Management Discussion & Analysis. Dividing the average daily transactions by the number of seconds in a trading day and across the quarter gives an estimated average of 9.7 trades per

Perfect information is the concept of an economic ideal such that every market participant has instant and complete knowledge. There is no opportunity for information arbitrage or value to information that one has opposed to another. The introduction of latency in the real world creates delays in transmitting and receiving relevant market information. Latency therefore becomes the primary barrier to achieving perfect information. At a high level, this is illustrated by the various latency delays introduced in the broad steps below:



Latency is the time lag between when something happens in the market (m)—such as a price change, a change in trading volume, or a new order or cancellation—and when other market participants become aware of it and are able to respond. This includes the time it takes for the information to be transmitted to the rest of the market, and, if needed, the additional time for participants to decide and act on that information (a+b+c+d).[12]

Even minimal latency at any step can have significant impact where such latency is not uniform, balanced or generally present for all participants on an equal basis.

The theoretical ideal of perfect information is a useful benchmark to contrast the real-world marketplaces and their entire ecosystems which are fundamentally shaped by latency. If one participant can act on m, because their x+a+b+c+d is materially lower than their competitors, before others can update their own quotes (or marketable orders), they would have a competitive advantage (or conversely disadvantage).

Practically, as each system introduces latency, this creates risk that new orders are entered with one key imperfection of (stale) information**.** It is the investors' experience across the entire trading ecosystem (not simply the marketplace) which creates an economic expectation of continuity or discontinuity. Investors implicitly expect latencies based on their economic circumstances. These latencies and deviances from investor expectations determine whether orders were continuous or not in a practical economic sense.

An Assessment of Latency Impacts

The regulatory framework recognizes that, where latency advantages can be accessed equitably through fair access provisions—such as equal opportunities to obtain lower-latency data feeds or co-locate infrastructure—the market naturally segments itself through economic self-selection. Participants with greater sensitivity to latency will pay a premium to reduce information costs, while those less affected by latency prioritize minimizing other costs. When this process operates transparently, competitively, and on an economically driven basis, it is regarded as fair.

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second for the first quarter of 2005. This would be one trade across the entire stock list every 100 milliseconds. TMX 2007 Annual Report details the December 2007 TSX Quantum launch, emphasizing "greatly increased capacity" over legacy systems, with phased rollouts through 2008 targeting higher throughput amid rising volumes (149 billion shares traded yearly). Later 2011 MD&A references Quantum XA upgrades to 55,000 orders/second (doubling prior), then 200,000/second—implying base Quantum handled ~20,000-50 million daily equivalents in 2007-2008: TMX Group Inc.: 2011 Management Discussion & Analysis These latencies that far exceed what CIX proposes for today's market. The market's expectation was set a certain manner across the ecosystem, and in practicality was always referred to by practitioners as the "continuous market".

[12] For illustrative purposes > a longer variety of subsystems and subroutines can and are introduced in these general processes as dealers specialize across desks. Further increasing latency and latency variance.

Generally, retail investors are not latency sensitive. Though their aggregate reaction time for x+a+b+c+d would still be measured in seconds, or an order of magnitude of 10000X, they are not necessarily seeking to save fractions of a penny on average on hundreds of shares (or on fractions of a share), by executing in microseconds. In order to protect them from more latency sensitive traders, the order exposure rule ensures immediacy of fills.

The liquidity providers to CIX are likely high-frequency traders. It is also worth noting that, given the odd-lot and fractional order sizes involved, these participants are probably replicating their outbound orders based on activity in the principal markets to mitigate the latency effects of information flows originating there.

The aforementioned provides the appearance of fairness. The fairness is challenged when CIX introduces "continuous discontinuity" (our term) to make the case that it should not be treated as a continuous market, and therefore subject to all the relevant trade-through, lot size, minimum increment, order exposure rules etc., by holding mini-auctions that are at smaller internals than execution possibilities on continuous markets, and most importantly imperceptibly small execution time frames which are also randomized. But in practical terms,each of these aspects individually and, especially in concert, will have the effect of making the CIX market appear to retail to be no different than the competing continuous marketplaces due to:

- Infinitesimally small distinctions between match events: Marketplace executions are already in the 10 microseconds to sub millisecond range. Furthermore, several markets that regulators classify as "continuous," such as Alpha, employ speed bumps of approximately 1 millisecond—roughly 1 to 10 times longer than the match intervals proposed by CIX. It is therefore inconsistent to suggest both that:

  a) Orders on CIX entered and matched at a lower aggregate latency than Alpha (assuming equivalent external factors a+b+c+d+x)should not be considered part of a continuous auction market; and

  b) While Alpha's speed-bump orders trade unprotected within a "continuous" auction market, orders on CIXmatch interval not subject to delay,would also be deemed unprotected.

  In essence, if CIX's match intervals are sufficiently frequent to be functionally continuous relative to other markets, it should qualify as a continuous market.

- Imperceptibly small: the combined latency a. b. c. d.+ x at seconds is considerably > m such that 1000s of match events and consequent fills could occur in odd or fractional lots before retail traders even notice the movements on CIX from their own series of orders.

- Latency variance: The order entry latency of dealers will have variances such as the latency variance of each of these systems and the different combination of variances change from order to order. With a total latency variance that is in the >1 millisecond to seconds range ,the latency variance of (a+b+c+d+x) is much greater than the match intervals time differential. Coupled with outbound data latency and variances, investors will not perceive this a near continuous market, but it will seem continuous to them. A user could not know if quotes from match events are practically coming from continuously discontinuous match events or a traditional continuous market. If it is meant to "feel like" a continuous market, it should be treated like one.

- Randomization: This effectively obfuscates the discontinuity of the match intervals, as end users would not know, symbol by symbol, whether it comes from the randomness of the symbol intervals or from the natural latency variance of systems. The introduction of its own randomization of execution latencies is an introduction of latency variance and will effectively create the perception of a continuous market with random latencies and latency variance, but controlled and known by a handful few.

Given historical precedents like TMX, combined with latency aggregates and variances, smaller retail users will perceive no meaningful difference and will assume they are interacting with a continuous CLOB under regulatory rules. In reality, the design circumvents continuous-market obligations, weakening price discovery, and misleading retail investors by creating a gap between perceived and actual market dynamics.

Recommendations

All matching engines operate as "near continuous" to some degree, disseminating trades faster than participants can fully react. The critical distinction lies not in self-declared proximity to continuity, but in whether a market is truly discontinuous, defined by matching intervals far exceeding participant reaction times (i.e. classic MOO/MOC auctions, where orders submit independently of continuous-market feedback loops, incorporating only an initial public price snapshot).

The CIX Proposals' advantages would not materialize in a genuinely discontinuous auction matching solely on new information and intent, with randomized 1-10 second intervals. This is avoided by relying on CLOB price refreshes for discovery while enabling tighter matches that bypass other venues' priority queues via "optimized" speed bumps.

The CIX Proposal free rides on public venues while operating independently and claims discontinuity via "near continuous" self-labeling. This "continuous discontinuity" model denies clients order protection, leaving unsophisticated participants unaware of safeguards available on principal venue, while enabling liquidity providers to exploit public quotes from continuous markets. CIX's proprietary optimization algorithm demands full transparency prior to launch. While individual trades involve negligible dollar amounts, the precedent enables venues to hold orders secretly, eroding fairness and investor confidence on the global stage.

E. MARKET DATA

Market data sales remain a regulated privilege. Feeds lacking informational content should not subsidize operations by passing on costs unevenly onto the broader industry. Rather, benefits should demonstrably match created value.

Retail investors will not differentiate CIX prices from SIP or consolidated tape data. CIX will inevitably monetize "off hours" feeds and advertised tighter spreads, yet its prices would not contribute to price discovery and size discovery.

A proper cost-benefit analysis should necessitate a disclosure of CIX business plans, and its aimed reliance on market data revenues. Market data for *de minimus* fills (fractions), is excluded from market data feeds, consolidated at the SIP, and not sold, in order to remove incentive for continued fragmentation. CIX prices are not disclosed by proprietary CIX data feeds. Revenue is subject to cost-based pricing.[13]

[13] CFFiM: Market Data: Costs Swell to Buy - Not Produce, August 25, 2025; CFFiM: Producing Resolutions to Market Data Costs, February 12, 2023

CONCLUSION

The CIX Proposal should be considered from the viewpoint of the impact its growth would have on Canada's market structure and whether market venues operate continuously or discontinuously in line with associated demands.

Exchanges are a place where labor, invention, and capital meet to create new enterprise and economic progress. The secondary market is a critical place for enterprises to be revalued by long-term investors.

It is commonly understood that markets need a balanced mix of speculators (hedgers) and investors (real money). When the balance is diminished, the ability of investors to interact is greatly reduced. If their ability to interact is reduced, tremendous opportunity costs are introduced in primary markets.

This balance may be diminished when rule-setting, functionality, and direction of market developments favours one constituency over another. Canada has been a live demonstration of this opportunity cost as its ecosystem has been focused over the last 25 years on the needs of small sized order flow and the price discovery of convenience (reduced spreads) as opposed to the price discovery of corporate control, and the movement of sizeable interest.

SCHEDULE A

Answers to the following outstanding issues and questions should be included in a revised proposal.

Broker Preferencing

Broker preferencing is common practice in Canadian markets and is a marketplace support for internalization.

The CIX Proposal states: "Subscribers trading fractionals will be able to rely on broker preferencing and make an election to use only their own broker liquidity to execute against their incoming fractional orders."

The addition of "elect to use their own broker liquidity" implies that brokers can ignore the liquidity of other brokers. This seems to be in direct conflict of fair access rules and the immediacy of execution. If the broker makes the election, then theoretically an order can sit unexecuted for a period if the broker does not provide a contra liquidity, even if other broker orders can fill that order.

- If the Broker has made the self-liquidity election, and cannot fill its own orders will the Fractional Liquidity Provider (FLP) do so?

The CIX Proposal states that the priority schema used by each of the marketplaces is Price/Broker/Display/Time. However, in the example describing matching on ASPEN VERT for Odd Lots and Fractional Trading it notes the following: "Broker preferencing will be supported on both odd lots and fractional share quantities within the CIX ASPEN VERT order book. Broker preferencing only applies if the broker is also a recognized FLP on the symbol."

This appears a significant caveat to the typical understanding of broker preferencing and can lead to confusion when they see a print from their own firm go up against another broker instead of their booked and displayed order. It appears to force those brokers that benefit significantly from broker preferencing to become FLPs. It is also questionable why the FLPL would need to be engaged as the contra to the inbound order in the example when the orders are in the book that can satisfy the inbound order.

- Are High Level Orders (HLOs) subject to broker preferencing? If so, would this not result in information leakage for partial filled HLO?

CIX Proposal states "Subscribers trading fractionals will be able to rely on broker preferencing and make an election to use only their own broker liquidity to execute against their incoming fractional orders."

Dark Reference Price Crossing (DRCP)

The CIX Proposal states that the DRCP is set based on one of the following:

- If the ASPEN VERT last sale price is within the last 30 minutes of the trading session, the DFCP is set to the last sale price. Is that a board lot or odd lot sale price?
- If there is no last sale price within the last 30 minutes of the trading session, the DFCP is set to the midpoint of the time weighted average price (TWAP) between the BBO over the last 30 minutes of trading. How can a TWAP be calculated over the last 30 minutes of trading if no trades occur during that period or is 30 minutes of trading referring to last 30 minutes where security traded? How does this incorporate a security not trading because of new information?

Fees

- What is the overall fee model?
- How are the FLPs compensated? Are the incentives in line with fair and equitable practices

Fractional Shares

The CIX Proposal does not clarify whether fractional shares are determined by value or percentage of lot.

Crypto orders are entered based on dollar value of one whole unit. e.g. buy $10 of ABC at $50 would result in 0.2 (i.e. 20%) of a unit. If the security price moved while the order was in transit the percentage would be above or below the 20%, but the $10 is fixed.

Alternatively, will the order simply be entered as BUY 20% of 1 share of ABC at $50?

This is important in considering if the trade station suppliers are able to support this type of order entry and any resulting order display and trade capture. If a dealer has a fractional imbalance at the end of the day it is intentional. The description states this fractional imbalance needs to be resolved and will be completed against the FLP at the Derived Fractional Closing Price (DRCP). If understood correctly, this mechanism allows CIX to report full shares to CDS after the cut-off. The concern is that it shifts the operational and risk burden onto brokers and FLPs. A more detailed explanation is needed regarding how this interacts with the clearing and settlement process.

A fractional share book should not be permitted to leverage the public quote feed to generate synthetic quotes for resale, nor should it be able to rely on the industry's clearing infrastructure without corresponding obligations. Fractional share activity should never introduce principal risk where such exposure was not intended by the originating principal.

Latency: Arbitrage

Significant latency arbitrage may be introduced and institutionalized by a system that focused on intervals of time and shaping perceptions of time insensitive investors (whose orders have little information content), and latency hyper-sensitive traders.

- Does a matching schedule throughout the trading session calibrated to microseconds allow firms' discretion to avoid the continuous market for orders which otherwise should be exposed via the order exposure rule? Is it encouraging orders to be solicited at 98 shares to be implicitly directed to CIX, and avoid order exposure rules on the continuous market for 100 shares?
- Does the same incentive to market investment products under traditional board lots exist for fractional shares?

Latency: Impacts

- How will overall message traffic be projected to change, as more messages come on as supply is built?
- What were the downstream data storage consequences?
- What data storage consequences could be expected for dealers looking to save all messages as a result of more throughput and therefore increased traffic?

Latency: Policies

With respect to latency insensitive order types and their interaction with latency sensitive information flows:

- Where is CIX measuring the latencies? An architectural diagram which includes the latency measurements of CIX matching engines, the order entry sessions, and outbound systems including public and private data feeds should be provided to assure that outbound feeds will not ensconce and advantage to liquidity providers.
- Will all co-located servers at Equinix facilities be equidistant to the order books' matching engine in cable length? Are the 3 order books equidistant to each other (from a theoretical or practical perspective)? Are they equidistant to the OE gateway?
- Is the venue prepared to make this data available for audit, including sharing it with participants and regulatory authorities?
- Are there any additional sources of latency between the order entry session and the trading engine — such as risk controls, connectivity ports, or other intermediary processes?
- What is the anticipated latency for client order entry across the systems?
- Is the data latency lower for direct feeds such that LP will have an ensconced advantage over retail users? In particular, is the latency on these feeds lower or higher than the match intervals?

Latency: Standards

The CIX Proposal states: "The CIX matching engine calculates security specific matching schedules using an optimization process that takes into account historical performance data, including matches from previous days. Each security has its own unique matching schedule, designed to maintain price stability after Match Events. The optimization process considers factors like volatility, spreads, daily trading volume, price stability, and other market data from how the security has traded recently, both in the market and on the CIX trading books. The midpoint model also takes into account matches from the current day and may adjust the matching schedule intra-day."

The fairness of the "optimization process" cannot be assessed without disclosure of the algorithm (basic price-time priority and the CLOB is an algorithm for example which is fully disclosed and understood).

- What are latency estimates based on? E.g., proof of concept, calculations based on product specs or from the technology vendor?
- What contingency measures are in place if advertised latencies fail to materialize?
- What is the underlying hardware, including the specific provider?
- What is the latency variance to be expected when including network? (The maximum and minimum latency expected, and the expected distribution of latency outcomes)
- What factors within and outside of CIX control might impact overall latency or latency variance experienced by individual users and by users overall?

Market Open

- How will the market open on each of the three CIX markets? Shotgun or auction?