

IIROC NOTICE

Administrative Notice Request for Comments

UMIR

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Contact:

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12-0374

December 12, 2012

IIROC Study of High Frequency Trading – Request for Assistance

Executive Summary

IIROC is publishing for comment a proposed Request for Assistance (the “proposed RFA”) with Phase III of IIROC’s study of High Frequency Trading Activity on Canadian Equity Marketplaces (the “HFT Study”).

Concurrent with this notice, IIROC is publishing its HFT Study¹, which summarizes the results of Phases I and II of the HFT Study.

After considering the comments on the proposed RFA received in response to this Request for Comments, IIROC may revise the proposed RFA, and will issue the final RFA. Those parties interested in responding to the RFA may do so at that time.

¹ See IIROC Notice 12-0373 Administrative Notice – General – The HFT Study: Phases I and II of IIROC’s Study on High Frequency Trading Activity on Canadian Equity Marketplaces



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1. Request for Comments

IIROC has been recognized as a self-regulatory organization by each of the Canadian provincial securities regulatory authorities (the “Recognized Regulators”) and, as such, is authorized to be a regulation services provider for the purposes of National Instrument 21-101 (“Marketplace Operation Instrument”) and National instrument 23-101 (“CSA Trading Rules”).

As a regulation services provider, IIROC administers and enforces trading rules for the marketplaces that retain the services of IIROC.² IIROC has adopted, and the Recognizing Regulators have approved, UMIR as the market integrity trading rules that will apply in any marketplace that retains IIROC as its regulation services provider.

The proposed RFA is set out in Appendix “A”. Comments are requested on all aspects of the proposed RFA. Comments should be in writing and delivered by **January 11, 2013** to:

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Commentators should be aware that a copy of their comment letter will be made publicly available on the IIROC website (www.iiroc.ca under the heading “News and Publications” and sub-heading “Studies, Reports and Presentations”) upon receipt. A

² Presently, IIROC has been retained to be the regulation services provider for: Alpha Exchange Inc. (“Alpha”), Canadian National Stock Exchange (“CNSX”), Toronto Stock Exchange (“TSX”) and TSX Venture Exchange (“TSXV”), each as an “exchange” for the purposes of the Marketplace Operation Instrument (“Exchange”); and for Bloomberg Tradebook Canada Company (“Bloomberg”), Chi-X Canada ATS Limited (“Chi-X”), Instinet Canada Cross Ltd. (“Instinet”), Liquidnet Canada Inc. (“Liquidnet”), Omega ATS Limited (“Omega”), TMX Select (“TMX Select”) and TriAct Canada Marketplace LP (the operator of “MATCH Now”), each as an alternative trading system (“ATS”). CNSX presently operates an “alternative market” known as “Pure Trading” that is entitled to trade securities that are listed on Exchanges and that presently trades securities listed on the TSX and TSXV.



summary of the comments contained in each submission will also be included in a future IIROC Notice.

After considering the comments on the proposed RFA received in response to this Request for Comments, IIROC will issue the final RFA. **Those parties interested in responding to the RFA may do so at that time.**

2. Background

IIROC has initiated a comprehensive and objective study of certain types of trading activity in Canadian equity markets using its database of confidential regulatory market data consisting of all orders and trades executed on Canadian equity markets. Using the data to drive the analysis allows us to view all types of trading activity in an unbiased manner.

The HFT Study consists of three phases:

- Phase I identifies a study group based on User IDs trading with a high order-to-trade ratio on Canadian equity marketplaces (the “HOT group”).
- Phase II is a descriptive statistical analysis of the trading activity of the HOT group on Canadian equity marketplaces and seeks to answer the five fundamental queries – who, what, where, when and how – as related to HFT.
- Phase III (the “Impact Study”) will assess the impact of HFT activity on Canadian marketplaces with respect to market quality and market integrity. As part of this phase, further analysis will be conducted with the aim to provide a more in-depth view of HFT and related trading behaviours from multiple perspectives. We will also attempt to identify and quantify the different high frequency trading strategies being employed in our markets and their impacts on different market participants.

Concurrent with this notice, IIROC is publishing its report, “The HOT Study: Phases I and II of IIROC’s Study of High Frequency Trading Activity on Canadian Equity Marketplaces”.

3. Discussion of the RFA

IIROC believes that the Impact Study in its final form should be clear, practical and easily understood, and recognizes that such a study should be supported by scientific, mathematical, and statistical methodologies. To that end, we would like to encourage different perspectives that are accompanied by a rigorous analytical methodology. IIROC is therefore seeking assistance from interested outside parties, both academic and other, that



have a demonstrated expertise in the area of equity market structure in order to complement the analysis being undertaken within the organization. IIROC has defined specific questions to be addressed by the analysis by outside third parties.

Acknowledging that candidates will likely bring specific expertise to the Impact Study, more than one candidate may be selected to participate in the study. IIROC will coordinate the work of the successful candidates who will be provided, subject to agreed confidentiality provisions, access to the regulatory market data described above and access to personnel that can provide detailed descriptions of the specific data fields and the structure of the data. IIROC recognizes that a successful academic candidate(s) may wish to publish independent research based on their work on the Impact Study and will consider and attempt to facilitate such requests.

Once the final version of the RFA is issued, candidates will be given one month to submit proposals. Once the successful candidates are selected, IIROC anticipates that the Impact Study will take eight to ten months to complete.

The draft RFA (see Appendix “A”) outlines specific questions that IIROC is seeking to address. To date, IIROC has consulted with industry representatives and other regulators in the formation of these questions. This Request for Comments seeks input from the broader industry and public in formulating any further questions that may inform the framework and focus of the Impact Study.

4. Questions

While comment is sought on all aspects of the RFA, IIROC would specifically request response on the following question:

1. Are there any specific questions or other areas of study that you feel should be included in the RFA to effectively evaluate the impact of HFT?



Appendix A – Proposed Request for Assistance

Background

The Investment Industry Regulatory Organization of Canada (“IIROC”) has been recognized as a self-regulatory organization by each of the Canadian provincial securities regulatory authorities, and as such, is authorized to be a regulation services provider for the purposes of National Instruments 21-101 and 23-101. As a regulation services provider, IIROC administers and enforces trading rules for the marketplaces that retain the services of IIROC³. IIROC sets high-quality regulatory and investment industry standards, protects investors and strengthens market integrity while maintaining efficient and competitive capital markets.

IIROC has undertaken a study of certain trading behaviours associated with high frequency trading (“the HFT Study”). The HFT Study consists of three phases: Phase I – the identification of a study group; Phase II - a detailed descriptive statistical analysis of the trading activity of the study group on Canadian equity marketplaces; and Phase III – a study of the impact of HFT on Canadian marketplaces with respect to market quality and market integrity. On [INSERT DATE], IIROC published “The HOT Study” which summarizes the results of Phases I and II of the HFT Study.

The Request

IIROC is requesting assistance from interested outside parties that have demonstrated expertise in the area of equity market structure to assist in Phase III of the HFT Study, assessing the impact of HFT on the integrity and quality of the Canadian equity markets.

Subject to agreed confidentiality provisions, IIROC will make a unique dataset, which can be used to investigate specific trading behaviours characterized as HFT, available to successful candidates to further the aims of the study. The dataset contains all order messages, quote updates and trades from all Canadian equity trading venues and includes private data that is not available via public feeds.

The aim of this initiative is to develop and apply metrics and methodologies to the IIROC dataset in order to quantitatively measure the impact of specific trading behaviours characterized as HFT on the quality and integrity of the Canadian equity market.

³ Presently, IIROC has been retained to be the regulation services provider for: Alpha Exchange Inc., Canadian National Stock Exchange (“CNSX”), Toronto Stock Exchange (“TSX”) and TSX Venture Exchange (“TSXV”), each as an “exchange” for the purposes of the Marketplace Operation Instrument (“Exchange”); and for Bloomberg Tradebook Canada Company, Chi-X Canada ATS Limited, Instinet Canada Cross Ltd., Liquidnet Canada Inc., Omega ATS Limited, TMX Select and TriAct Canada Marketplace LP (the operator of “MATCH Now”), each as an alternative trading system (“ATS”). CNSX presently operates an “alternative market” known as “Pure Trading” that is entitled to trade securities that are listed on other Exchanges and that presently trades securities listed on the TSX and TSXV.



Specific questions that IIROC is seeking to address include:

1. How can market integrity⁴ be defined?
2. How can market integrity be measured quantitatively?
 - What specific metrics and methodologies can be used to quantify changes in market integrity?
3. How can market quality⁵ be defined?
4. How can market quality be measured quantitatively?
 - What specific metrics and methodologies can be used to quantify changes in market quality?
5. How can the impact of changes to market structure be assessed?
6. What trading behaviours can be measured and studied using the available dataset?
7. How do different behaviours impact market integrity? Market quality?
8. What is the impact on price discovery of specific trading behaviours?
9. Do certain groups of market participants have an advantage over other groups of participants?
10. Are specific groups of securities impacted by trading behaviour characterized as HFT to a greater or lesser extent?
11. Are specific types of market participants impacted by trading behaviour characterized as HFT to a greater or lesser extent?
12. Has investor confidence been impacted by specific types of trading behaviour?

⁴ In the IOSCO report titled *Regulatory Issues Raised by the Impact of Technological Changes on Market Integrity and Efficiency (October 2011)*, market integrity is defined to mean, “the extent to which a market operates in a manner that is, and is perceived to be, fair and orderly and where effective rules are in place and enforced by regulators so that confidence and participation in the market is fostered” (page 9) <http://www.finance-watch.org/wp-content/uploads/2012/05/3.-IOSCO-on-HFT-20-October-2011.pdf>

⁵ *Concept Release on Equity Market Structure* released by the US Securities and Exchange Commission discussed market quality metrics to include measures of spread (quoted, effective and realized), speed of execution, short term volatility (as measured by variance ratios and realized spread). <http://www.sec.gov/rules/concept/2010/34-61358.pdf>. Market efficiency may also be connected to market quality. The IOSCO report titled *Regulatory Issues Raised by the Impact of Technological Changes on Market Integrity and Efficiency (October 2011)* refers to market efficiency as “the ability of market participants to transact business easily and at a price that reflects all available market information. Factors considered when determining if a market is efficient include liquidity, price discovery and transparency.”



Submissions

IIROC expects interested parties to submit proposals that outline the specific definitions, metrics and methodologies that would address, at a minimum, some or all of the questions outlined above.

Proposals should be submitted to IIROC by [date to be determined at time of publication]. Submissions should be sent to [to be determined at time of publication].

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