

October 15, 2012

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**Re: Proposed Guidance on Certain Manipulative and Deceptive Trading Practices - IIROC Rules Notice 12-0221 dated July 17, 2012**

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FAIR Canada is pleased to offer comments on the Investment Industry Regulatory Organization of Canada's ("IIROC") proposed guidance on the interpretation of the anti-manipulation provisions of the Universal Market Integrity Rules ("UMIR") relating to the use of trading strategies using automated order systems or direct electronic access (the "**Proposed Guidance**"). FAIR Canada is a national, non-profit organization dedicated to putting investors first. As a voice of Canadian investors, FAIR Canada is committed to advocating for stronger investor protections in securities regulation.

### **FAIR Canada Comments – Executive Summary**

1. FAIR Canada supports the regulatory approach being taken by IIROC in the Proposed Guidance. We agree that it is important to make clear that UMIR prohibits the use of trading strategies involving high frequency trading ("HFT") and any form of automated order system that are manipulative or deceptive. We support the Proposed Guidance. However, we believe the Proposed Guidance requires clarification in certain areas.
2. FAIR Canada supports the principle of equal access in securities markets and advocates that the regulators implement measures to ensure that all investors and market participants have fair and equal access to market information, trading opportunities and liquidity. We are concerned that sophisticated participants that generate very large volumes of orders and trades using HFT and other automated trading strategies may be favoured by exchanges and other marketplaces over individual investors and other participants who do not generate significant levels of activity (and therefore significant profits and market share) for either marketplaces or intermediaries. Regulators should not permit any form of favouritism.
3. FAIR Canada agrees that Participants should be required to have reasonable procedures to address potential manipulative and deceptive trading by persons using trading strategies that rely on automated order systems or direct electronic access. IIROC should require that such systems, including algorithms, be tested prior to being launched for use

in live trading.

4. FAIR Canada supports IIROC's initiatives to enhance its market monitoring capabilities to address manipulative trading activity related to use of automated order systems and direct electronic access. **As the front-line regulator for equities markets, it is imperative that IIROC obtain the tools and resources needed to effectively police these forms of advanced trading activity and to enforce the rules as outlined in the Proposed Guidance.**
  5. FAIR Canada commends IIROC for undertaking its study of high-frequency trading ("HFT") activity in Canada. IIROC's findings on the impact of HFT on market quality and integrity will be very important to investors and other market participants. It will be important for regulators to act on the study's findings in a timely manner.
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**1. FAIR Canada supports the regulatory approach being taken by IIROC in the Proposed Guidance. However, we believe the Proposed Guidance requires clarification in certain areas.**

- 1.1. We agree that it is important to make clear that UMIR prohibits the use of trading strategies involving HFT and any form of automated order system that are manipulative or deceptive, or that result in misleading activity or artificial prices.
- 1.2. As IIROC notes, the use of automated order systems in equity markets has led to concerns that high velocity trading may enable abusive practices in the securities markets on a larger scale and pose systemic risks to market integrity. Regulators around the world are responding to this perceived threat. **FAIR Canada advocates that Canadian regulators adopt the following fundamental principle: Sophisticated users of automated order entry and direct electronic access that deploy very short term trading strategies should not be permitted to take unfair advantage of investors who rely on the provision of fair and efficient securities markets for investment purposes.** Whatever benefit automated order entry and short term trading strategies may provide, the basic purpose of capital markets remains to facilitate long term access to capital and investment opportunities rather than to facilitate HFT.
- 1.3. The Proposed Guidance does not comment on whether a pattern of trading that is manipulative and deceptive must be identified before IIROC may take action. This raises a question of interpretation: Might IIROC take action based on the entry of one set of orders, or is the interpretation that a manipulative and deceptive trading practice can only be determined to exist if a **"pattern of a practice"** such as spoofing or layering exists?
- 1.4. The Proposed Guidance briefly describes each form of manipulation under

Question 1 of the draft Notice. **FAIR Canada notes that in some cases the descriptions of the practices that IIROC will consider manipulative and deceptive are more thorough in the request for comments notice than in the draft Proposed Guidance.** While it is desirable to be succinct in Proposed Guidance if possible, FAIR Canada suggests that the guidance might be more useful to Participants and others if it explains the prohibited practices thoroughly. For example, in the Proposed Guidance spoofing is described as a tactic to influence the calculated opening price in a market. In the request for comments at page 11, it states that current IIROC Guidance defines spoofing as entering pre-opening orders for the purpose of determining the depth of market or checking for iceberg orders, as well as to affect the calculated opening price. On page 13 spoofing is defined even more broadly in the IOSCO report and the SEC Concept Release. In addition, the request for comments identifies “quote manipulation” as another practice that is of concern to IIROC but this does not appear to be mentioned in the Proposed Guidance.

**2. FAIR Canada supports the principle of equal access in securities markets and advocates that the regulators implement measures to ensure that all investors and market participants have equal access to market information, trading opportunities and liquidity.**

- 2.1. FAIR Canada is concerned that sophisticated participants that generate very large volumes of orders and trades using HFT and other automated trading strategies may be favoured by exchanges and other marketplaces over individual investors and other participants who do not generate significant levels of activity (and therefore significant profits and market share) for either marketplaces or intermediaries.
- 2.2. Regulators should not permit any form of favouritism, in particular any policies that favour users of very short term trading strategies over the interests of retail investors and other suppliers and users of capital. Favouritism may include “maker-taker” rebates and other incentives (co-location, proprietary data feeds, etc.) that tend to reward HFT and encourage trading that adds nothing to the market.
- 2.3. **The principle of prohibiting favouritism extends beyond prohibiting abusive trading practices such as manipulative or deceptive trading. It should extend to ensuring equal access to market information. Marketplaces should be prohibited from providing market information to preferred customers before other investors can obtain it, or providing more detailed information to preferred customers than other investors can obtain. In this respect, we question the practice of permitting of co-location services by exchanges and others as they provide an information advantage to HFT that are favoured with co-location. We also question whether the “maker-taker” fee model has unintended effects including to reward HFT for trading that is of no benefit to**

**the market and may undermine investor confidence in market integrity.**

- 2.4. The principle should also extend to prohibiting marketplaces from artificially subsidizing preferred customers' trading costs by devoting excessive resources to servicing their IT, systems connection and data speed requirements. Provision of costly infrastructure and other services to preferred customers may effectively offset some or all of the cost of those firms' trading fees. That means the fees those customers pay to enter orders and execute trades may be effectively lower than the fees paid by investors.
- 2.5. **FAIR Canada is of the view that basic fairness is impaired in a system that subsidizes short-term, high-volume traders whose trading practices make it more difficult for investors to obtain clear price information from the market and to execute orders in an orderly market. If the system incents order flow from users of such practices over order flow from investors, it may also detract from market quality and investor confidence.**
3. **FAIR Canada agrees that Participants should be required to have reasonable procedures to address potential manipulative and deceptive trading by persons using trading strategies that rely on automated order systems or direct electronic access.**
  - 3.1. **FAIR Canada supports the requirement for Participants to act as "gatekeepers" to the markets, particularly in the context of use of automated order systems and direct electronic access.** Direct execution of orders, particularly using trading algorithms and automated order generation, clearly introduces higher levels of risk, including greater risk of non-compliance with regulations such as UMIR. Therefore, FAIR Canada strongly supports the requirements for Participants to adopt appropriate written policies and procedures to ensure compliance with the rules, including undertaking compliance testing to detect potential manipulative and deceptive trading practices.
  - 3.2. Where HFT or algorithmic trading is involved, it is clear that the use of pre-trade controls and real-time alerts is necessary to ensure compliance with UMIR and to prevent market disruptions along the lines of those which have occurred in the markets.
  - 3.3. **FAIR Canada suggests that IIROC require that automated order systems, including algorithms, be tested prior to being launched for use in live trading. The testing should cover reliability and capacity of the system, assurance that they operate as intended, testing for compliance with regulations including the provisions of UMIR covered by the Proposed Guidance, and testing for potential negative impacts on the fair and orderly operation of markets.**
  - 3.4. In this regard, we attach copy of an article from the Financial Times of September 30, 2012 which refers to a study by the Federal Reserve Bank of Chicago that

found a lack of testing and a number of out-of-control algorithms.

**4. FAIR Canada supports IIROC's initiatives to enhance its market monitoring capabilities to address manipulative trading activity related to use of automated order systems and direct electronic access.**

4.1. IIROC's Proposed Guidance is needed and will be useful, but much depends on how effectively the rules are policed. As IIROC states in its Notice, "The submission of large numbers of orders across multiple marketplaces in Canada, often with the use of direct electronic access to marketplaces, presents significant challenges for monitoring trading activity and enforcing existing securities regulations." As the front-line regulator for equities markets, it is imperative that IIROC obtain the tools and resources needed to effectively police these forms of advanced trading activity and to enforce the rules as outlined in the Proposed Guidance.

**5. FAIR Canada commends IIROC for undertaking its study of HFT activity in Canada. It will be important for regulators to act on the study's findings in a timely manner.**

5.1 Industry estimates that HFT accounts for 25% to 40% of trades in Canada are stunning, in our view, and if accurate will have significant long-term implications for equity markets. We believe that IIROC's findings on the impact of HFT on market quality and integrity will be very important to investors and other market participants. We look forward to reviewing and commenting on IIROC's HFT study when it is completed.

**5.2 IIROC and the Canadian Securities Administrators (CSA) should be prepared to take action, and to implement additional rules to address HFT, if the HFT study finds that market quality, integrity or investor confidence is being negatively impacted by HFT.**

5.3 A number of international regulators are now taking action to address the impact of HFT and algorithmic trading on market quality by imposing stronger regulations. For example the European Securities and Markets Authority has issued guidelines for investment firms that operate trading algorithms to develop testing methodologies for new algorithms that "...might include performance simulations/back testing or offline-testing within a trading platform testing environment"<sup>1</sup>. Germany is proposing legislation to control the impact of HFT. The Hong Kong Securities and Futures Commission is proposing that firms ensure that "trading algorithms will operate as designed", their design and development "takes into account foreseeable extreme circumstances and the characteristics of

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<sup>1</sup> European Securities and Markets Authority, "Guidelines: Systems and controls in an automated trading environment for trading platforms, investment firms and competent authorities" (February 24, 2012), ESMA/2012/122 (EN), online: <[http://www.esma.europa.eu/system/files/esma\\_2012\\_122\\_en.pdf](http://www.esma.europa.eu/system/files/esma_2012_122_en.pdf)>.

different trading sessions”, and that “the deployment of trading algorithms will not interfere with the operation of a fair and orderly market.”<sup>2</sup> **In FAIR Canada’s view, IROC and the CSA must introduce further measures to control HFT and automated order systems if IROC’s study identifies any negative impacts from such trading.**

- 5.4 FAIR Canada believes that it will be important for the regulators to continue to monitor the impact of HFT and other forms of automated order entry on market quality and market integrity as the market evolves. FAIR Canada suggests that periodic reports on the monitoring and assessment of trading strategies that employ HFT and other forms of automated order entry will be needed, and should be made public.

We thank you for the opportunity to provide our comments and views in this submission. We would be pleased to discuss this letter with you at your convenience. Feel free to contact Ermanno Pascutto at 416-214-3443 (ermanno.pascutto@faircanada.ca).

Sincerely,



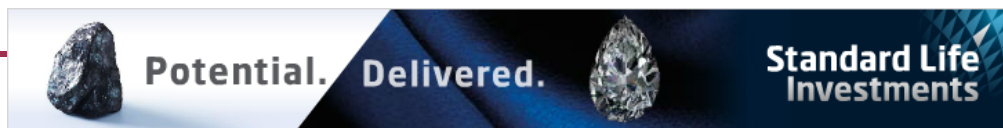
Canadian Foundation for Advancement of Investor Rights

Attachment: Financial Times “Higher Frequency traders’ claims refuted by Studies” by Vince Heaney (September 30, 2012)

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<sup>2</sup> Mark Steward, “Trading Architecture Asia Keynote Address” (August 31, 2012), online: <[http://www.sfc.hk/web/EN/files/ER/PDF/Mark\\_20120831.pdf](http://www.sfc.hk/web/EN/files/ER/PDF/Mark_20120831.pdf)>.





## High frequency traders' claims refuted by studies

By Vince Heaney



Knight Capital's experience of a rogue algorithm cost them \$440m in 45 minutes

Advocates of high frequency trading (HFT) like to point to the advantages it brings in terms of market efficiency.

The Futures Industry Association Principal Traders Group, a trade association, which includes high frequency traders, said in a September statement that "as markets have become more automated and competitive ... trading costs are lower, markets are deeper and more liquid, and prices better reflect information about the value of stocks and commodities."

But recent testimony before the US Senate Banking Committee and a new study by the Federal Reserve Bank of Chicago both paint HFT in a rather different light.

The regional Fed's study found that many high frequency trading firms fail to implement all the industry's best practice recommendations or rely on other companies in the trade process to catch an out-of-control algorithm or erroneous trade. The Fed's researchers were told the reason for these shortcomings was that applying risk controls before the start of a trade can slow down an order – speed of order routing, the driving force behind HFT, comes before risk management.

The study also found a similar lack of rigour in the development, testing and deployment of new trading algorithms and a few firms admitted to getting new trading strategies into the market quickly by "tweaking old code and placing it in production in a matter of minutes".

Unsurprisingly, the Chicago Fed found there were more out-of-control algorithms than they had anticipated. The most high profile recent example was on August 1 this year, when Knight Capital lost \$440m in 45 minutes because of a rogue HFT algorithm.

The Chicago Fed's study exposes a lack of controls, but other critics also call into question the claimed efficiency advantages. Giving testimony before the US Senate Banking Committee in September, David Lauer, a former trader and currently a consultant on HFT at Better Markets, cited several independent academic and industry studies showing an adverse effect from HFT on spreads, volatility and price impact.

Computerised direct market access has dramatically reduced spreads compared with the days of purely phone-based dealing, but there is evidence that now that high frequency trading is on the rise, spreads are no longer tightening. A 2012 academic study by Watson, Van Ness and Van Ness found the average bid-ask spread for US equities from 2001-05 was 2.2 cents, but from 2006-10, which coincides with the rapid rise of HFT, the average spread was 2.7 cents, an increase of 23 per cent. During the latter period, the study also found a 24 per cent increase in stock volatility. Similarly, a 2010 Yale School of Management paper found HFT was positively correlated with stock price volatility and stock prices tended to overreact to fundamental news when high frequency trading was at a high volume.

An April 2012 report from Morgan Stanley, meanwhile, concluded that institutional orders are having a much larger impact on asset prices now than prior to 2007. A common HFT strategy is to execute a trade at the volume-weighted average price of the day. Morgan Stanley found these strategies could now only handle 4-5 per cent of daily volume without causing an adverse price impact, compared with 10-15 per cent in the earlier period. The bank attributes this to the sharp decline in natural buyers and sellers in the market as HFT has come to dominate daily trading volume.

There are, of course, studies that show HFT lowers spreads and volatility, although, (as Mr Lauer told the Senate Banking Committee), some of these have been commissioned by high frequency trading companies and cannot claim to be independent. The essential point, however, remains that empirical evidence for the claimed efficiency advantages of HFT is far from clear cut.

Other industry practices create fleeting volume but add little to liquidity. These include layering, in which a false impression of a stock's liquidity is created, and quote stuffing, in which large orders are put into the market and then quickly withdrawn, flooding the market with quotes to slow down rivals with inferior computer systems.

The most worrying aspect of HFT liquidity, however, is that it can evaporate instantly such as during the flash crash of May 2010, when the US equity market lost \$1tn in value in a matter of minutes and then just as quickly recovered. During the crash high frequency traders withdrew their orders from the market and liquidity disappeared, because there is no obligation for them to make a market.

In light of these shortcomings it is right that regulators are moving to tackle HFT. On September 26 European regulators took an important step on the long road to reform when the Economic and Monetary Affairs Committee of the European Parliament voted unanimously to tighten the rules on HFT as part of the Mifid II legislative overhaul. One of their proposals is that all HFT orders should be valid for at least 500 milliseconds. In addition, "all firms and trading venues would also have to ensure that trading systems are resilient and prepared to deal with sudden increases in order flows or market stresses. These could include 'circuit breakers' to suspend trading."

New legislation always carries the risk of unintended consequences and regulators do not always get it right first time. In the US, which introduced

circuit breakers after the 2010 flash crash, the Securities and Exchange Committee introduced new rules in June, including a manual override that would allow exchanges to halt trading, because the initial breakers were being tripped too often, causing more uncertainty.

But even though the pace of reform is snail-like compared with the industry it is regulating and new rules will never be perfect, regulators are moving in the right direction.

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