High-frequency trading here to stay

By Philip Porado and Sara Tatelman

Some investors edged out, but technology provides liquidity benefits

SHUTTERSTOCK

You can just imagine 19th-century blue-blooded jaws dropping when stock traders reportedly started the practice of sending runners across exchange floors to place bids and offers.

But disapproval didn't stop those traders from practising their wind sprints or hiring secondary-school track stars to do the running for them. Time has always been money.

Later that same century, complainers quacked about firms employing the new-fangled telegraph to place orders. And the 20th century saw discontent with the way telephones and computers changed the genteel business of swapping stock shares.

High-frequency trading is today's equivalent of racing to the post, and while evidence shows it does unfairly advantage larger investors, pundits say it's here to stay. In December, the Investment Industry Regulatory Organization of Canada added more fodder to the debate with the release of a study that "did not reveal any concerns" warranting a further regulatory response.

Chances are good that when someone mentions high-frequency trading, bad things leap to mind: rogue traders, a disturbing level of investment by large wirehouses in nanosecond trading technology and sometimes inexplicable stock market plunges that happen when the algorithms don't work.

The latest technology boom to hit Wall Street, Bay Street and London, England, received its share of bad press following the Flash Crash in 2010, an event triggered by a single large mutual fund firm selling E-Mini S&P 500 contracts. The Flash Crash involved aggressive trading of long futures positions accumulated by high-frequency traders from the mutual fund as they bought and sold large volumes at lightning speeds and used elaborate algorithms that let them make money on minor pricing changes.

That activity sent the Dow Jones Industrial Average down a staggering thousand points (the second-biggest intraday decline in the stock market's history) before recovering several minutes later.

Those without access to the fastest and best technology view such trading practices as predatory. And a lot of the algorithm trading arguably short-circuits the original purpose of the capital markets, which is to bring funds to companies that need them to grow.

Then there's quote stuffing, a process by which traders plug millions of bids and offers into a trading montage only to cancel them moments later. The practice is designed to distract other market participants by adding extraneous information to the data flow and making it difficult to reach sound decisions.

Liquidity boost

Criticisms aside, though, high-frequency trading as a whole provides valuable liquidity to the marketplace.

"We see benefits to the market in the form of reduced spreads," says Kevin Sampson, TMX vice-president of business development and strategy. "Ultimately,

IIROC FINDINGS ON HFT

In December, the Investment Industry Regulatory Organization of Canada released a study on high-frequency trading. It found:

- HFTs generally provide more liquidity;
- HFT liquidity provision can be significantly lower when a large trade represents a higher-than-normal percentage of all trading volume on the day;
- HFTs contribute substantially to price discovery;
- the majority of passive orders entered by HFT either improve the best price or match the prevailing best prices;
- there is little evidence that HFTs take advantage of slower non-HFTs or front-run non-HFTs.

"The results of the study did not reveal any concerns that warranted a regulatory response beyond measures already implemented by IIROC and indicate that the presence of HFT has different impacts on Canadian equity markets and those who invest on those markets," IIROC said in announcing the results of the study on Dec. 9.

investors are getting better prices. Our markets are probably as efficient, or more efficient, now than they have ever been." He notes investors must sometimes pay higher costs because of high-frequency trading activity but suggests those challenges will always exist.

Ryan Riordan, a business professor at Queen's University, expresses a similar view. "We have no evidence HFTs destabilize the market," he says.

His research found high-frequency trades can be good for providing liquidity to the markets by, generally, narrowing the bid-ask spread. That, in turn, lowers trading costs except when high-frequency traders short sell.

"We found they're great for liquidity when you're submitting the order," he says.

"When you stop submitting the order, liquidity shuts off."

But that advantage doesn't do much for institutional investors, says Robert Young, a former chief executive officer of Liquidnet.

"The liquidity that's added by HFT doesn't really help institutional investors," says Young, who recently retired from Liquidnet. Rather, he adds, IIROC has found high-frequency traders become competition when institutional investors start to make a large trade as they enter into buying mode.

The result is that less stock is available as demand rises, which affects the price. "If someone finds out someone's buying a lot, they start buying because they know prices will rise," he says, noting high-frequency traders tend to be more agile.

And small-scale price fluctuations, even ones as small as a penny but repeated many times, have a greater impact on anyone making large trades. "When you multiply it out, it's enough to separate the 25th-best performer from the 26th-best performer," says Young. "It's really important to them not to lose that penny."

With practices like quote stuffing and selling early access to information, it's no surprise traders on both sides of the border are looking for ways to make high-frequency trading fairer. Some have suggested a sort of electronic speed bump to level the playing field. And as Young points out, IIROC has taken some action by allocating certain costs to high-frequency traders for the additional message volume their activities generate. p.15 ➤

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SMALLER INVESTORS EDGED OUT

High-frequency stock trading has gotten a bad rap for edging smaller investors – the ones without the funds to pay for super-fast trades – out of the markets.

"The losers are probably the traditional brokers, the people who used to make a killing," says Ryan Riordan, a business professor at Queen's University. "They used to supply the liquidity. Now, HFT is taking the easiest part of their business."

And, he says, the high costs of the technology are also a barrier to wider adoption.

"There are products I would love to develop more quickly for my clients that I can't because the TMX is forcing me to update my trading systems," says Doug Clark, managing director at ITG Canada, a member of the Aequitas consortium. "It's a constant technology demand from the marketplace, and at no point has a regulator said, 'This is too much for the dealers.' For the mid-tier, or the less technically capable dealers, it's more than they have resources for. So it really limits your ability to build risk management tools or to improve your algorithms, for example."

Aequitas president and chief executive officer Jos Schmitt agrees high-frequency trading has taken a toll on the market. "The key issue is that HFTs provide liquidity to already liquid securities, crowding out traditional market makers. This, combined with predatory HFT, leads dealers, investors and companies to lose confidence in the market."

Kevin Sampson, TMX vice-president of business development and strategy, concedes that lost confidence in the market is a big concern but doesn't blame high-frequency trading for the 2010 crash.

"It's been shown through studies that have been done in the U.S. that it wasn't predominantly HF traders that caused the Flash Crash. . . . But it goes back to the perception," says Sampson. "The investor just gets this feeling that something doesn't look right or isn't functioning properly. That influences the degree to which they participate in the markets."

Indeed, many market observers point to what they call a disturbing practice in which some think-tanks and universities were selling high-frequency traders early access to consumer surveys and other information. Outcry against the practice, which allegedly gave traders with ultra-fast access an edge, resulted in the New York state attorney general's office reaching an agreement with Thomson Reuters in 2013 to cease selling University of Michigan consumer survey results to high-frequency traders two seconds before the information became publicly available.

Mark Yamada, president of PUR Investing Inc., doesn't object to high-frequency trading but he does welcome the policy change. "The principle of fair and equal disclosure should apply. To do otherwise is like selling inside information. If Thomson Reuters makes all data available to everyone at the same time, it's difficult to object."

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Further, those concerned about the practice of catering to anonymous traders have offered suggestions for lighting up so-called dark pools, where transactions take place among parties wishing to buy or sell large blocks of stock away from major market quote montages.

In Canada, Young says IIROC has looked at dark pools in the United States and determined they're not appropriate here. "They prevented the growth of small-order dark pools, which would have been a bad thing," he says.

More importantly, when it comes to institutional investors, Young would like to see some flexibility to allow block trades to occur outside of the temporary price shifts caused by high-frequency trading.

"There should be a little flexibility in the rules around block trades," he says, adding that a merger to at least some degree of Canada's securities regulators would also help strengthen their ability to counter the influence of large high-frequency traders.

Creating fairness

Some exchanges in Canada and the United States, meanwhile, have gone another route: creating their own trading systems bound by strict rules and higher fees. IEX Group Inc., an American-registered broker-dealer, is a subscription-based alternative trading system funded exclusively by a group of mutual funds, hedge funds, family offices and individuals.

Founded by Markham, Ont., native Brad Katsuyama, it has created an infrastructure aimed at protecting orders from predatory trading, "a sub-class of high frequency trading, that attempts to identify and disadvantage traditional investor order flow. Despite the reputation that HFT has garnered, there are many HFT strategies, which provide a valuable service to the market. Predatory trading is not one of them . . . and our plan is to stop it," according to IEX documents.

With the launch last year of Aequitas Neo Exchange, a new exchange whose name means "fairness" and that states an aim "to address the pressing market issues of fairness, liquidity and transparency impacting investor confidence," investors will have another alternative. Aequitas president and chief executive officer Jos Schmitt envisions Aequitas as an alternative to other Canadian exchanges, which he feels will never address predatory high-frequency trading. "The incumbent marketplaces see HFT clients as volume. For them, it's a big money maker."

He says Aequitas isn't against high-frequency trading but he notes his aim is to implement a number of technological and market structure solutions to re-establish a level playing field between those market participants that have an informational advantage and those that don't.

On balance, says Mark Yamada, president of PŮR Investing Inc., the market does a good job of managing price discrepancy. "To me, HFT is just a more advanced technological form of that," he says.

"It can be abused a little bit, but as I say, on balance, it arbitrages away the discrepancies between markets. A level playing field is a good thing. Let the stronger survive, let the weaker die." BG

—With files from Dean DiSpalatro, Jessica Bruno, Katie Keir, Glenn Kauth and Anna Sharratt.

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