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Exchanges Can Ruin High-Frequency Trading Benefits: Study

By Jonathan Morgan - May 28, 2014

Exchanges risk making it harder for investors to get the best price by facilitating ever-faster trading, according to academics who examined Nasdaq OMX Group Inc. venues.

When Nasdaq sped up its markets in Copenhagen, Helsinki and Stockholm in 2010 by introducing its INET software platform, it spurred a race for profits among high-frequency traders, according to the report from VU University Amsterdam's Albert Menkveld and his student, Marius Zoican. That competition reduced earnings. To compensate, the traders widened the spread between prices they were willing to pay to buy and sell shares, making it more expensive for most investors to trade stocks.

High-frequency traders using computers to automatically buy and sell have become the dominant market makers on exchanges around the world, supplanting human traders. Menkveld and Zoican's paper says that when exchanges get faster, such as when Nasdaq reduced the reaction time of its Nordic markets to 250 microseconds from 2,500 microseconds in early 2010, they encourage not just helpful, liquidity providing high-speed traders, but also speculative "bandits."

"You've got these two types of high-frequency trading firms dueling, and if you speed up the market, it is more of a game between these two players and less of a game between them and investors," Menkveld said during a phone interview. "In this game, those putting out quotes are more prone to making losses. This is compensated for by them making wider spreads, which means end investors pay higher spreads."

Speed Need

A previous paper by Menkveld, cited by the U.S. Securities and Exchange Commission in March, found that spreads dropped 15 percent when a large high-frequency trader entered the Dutch market, providing evidence that the practice helps investors as a whole. Peter Nabicht, a spokesman for the Modern Markets Initiative, a lobbying group made up of high-frequency traders, said in March that the industry lowers the cost of trading.

The latest paper, titled "Need for Speed? Exchange Latency and Market Quality," won an award for outstanding paper in investments from the Eastern Finance Association in April. Menkveld and Zoican analyzed trades for companies in the OMX Nordic 40 Index, covering the three months before and after Nasdaq's system upgrade in February 2010. They found that high-frequency traders acting as market makers increased spreads by 32 percent following the shift.

"The point of this study is to look at when you move your exchange to a faster clock speed, what happens," Menkveld said. "We found a jump in the spread that must be related to a speed upgrade. We identified five HFT firms and we looked at their quotes and we found that their costs increased as a result of trading with high-speed counterparties who were better informed than them."

A spokesman for Nasdaq OMX declined to comment on the study.

To contact the reporter on this story: Jonathan Morgan in Frankfurt at jmorgan157@bloomberg.net

To contact the editors responsible for this story: Cecile Vannucci at cvannucci1@bloomberg.net; Nick Baker at nbaker7@bloomberg.net Nick Baker, Chris Nagi

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