

Flash Orders and Tipping Insider Information: A Comment

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This commentary is a reflection on Skjeltorp, Sojli, and Tham's (2016) article titled "Flashes of Trading Intent at NASDAQ" in Journal of Financial and Quantitative Analysis, volume 51, pages 165–196. The commentary raises questions to four arguments made by the authors regarding the flash-order functionality. Is it beneficial to all the stocks listed on NASDAQ? Does it increase transparency for the entire market? Does it improve competition among market participants? Is it the same as sunshine trading? By looking into the details of related references and providing our own analysis, we cannot agree with the authors about flash orders' role in promoting liquidity, transparency, competition or its similarity to sunshine trading.

INTRODUCTION

In the February 2016 issue of *Journal of Financial and Quantitative Analysis*, Skjeltorp, Sojli, and Tham state, "Although flash orders appear to be beneficial to NASDAQ and provide significant price improvements for submitters,...." (Skjeltorp, Sojli, & Tham, 2016, p. 181). If flash orders are beneficial to both the exchange and all investors whose orders are flashed, why did NASDAQ and BATS as well as DirectEdge voluntarily stop providing flash orders since there was no immediate legal risk? Skjeltorp, Sojli, and Tham (2016) do not address this question. Instead, the authors make several statements based on their quantitative study of flash order data during the introduction time on NASDAQ. This commentary selects four of those statements to discuss. First, the flash-order functionality improves the liquidity of NASDAQ, which is beneficial to all the stocks listed there. Second, the flash-order functionality increases transparency for the market. Third, the flash-order functionality promotes inter-exchange competition. Fourth, the flash-order functionality is the same as sunshine trading. Since the authors focus on NASDAQ, this commentary will follow suit.

What is NASDAQ's motive for providing flash orders? First, flash orders are marketable orders submitted to NASDAQ. Second, they are away from the national best bid and offer (NBBO). Third, NASDAQ keeps them on the exchange by flashing them to subscribing traders to see if any of those traders want to take the other side of the orders. Thus, NASDAQ avoids routing all or a large portion of those orders to competing exchanges where NBBOs are quoted (Skjeltorp, Sojli, & Tham, 2016, p. 170). Therefore, the flash-order functionality is a way for NASDAQ to get around the Regulation National

Market System to avoid losing certain revenue (Harris & Namvar, 2011). It is not intended to improve the liquidity or other market quality features on NASDAQ or other exchanges.

According to Skjeltorp, Sojli, and Tham (2016), there is controversy regarding whether flash orders create a two-tier market and enable a few speedy traders to profit at “flashed” investors’ loss. The Securities and Exchange Commission (SEC) proposed to ban flash orders in September 2009. However, the SEC had not implemented the ban as of the end of 2016.² Thus, the controversy remains. This commentary joins the debate by providing new insights via commenting on Skjeltorp, Sojli, and Tham (2016).

IS LIQUIDITY IMPROVEMENT ALWAYS BENEFICIAL TO ALL THE STOCKS?

“A comparison of various liquidity and activity measures around the flash introduction and removal periods shows that market liquidity improves (deteriorates) significantly when flash orders are introduced (removed), for stocks listed on both NASDAQ and the New York Stock Exchange/American Stock Exchange (NYSE/ AMEX). We find that market volatility decreases (increases) substantially when flash orders are introduced (removed)” (Skjeltorp, Sojli, & Tham, 2016, pp. 166-167).

A comparison is meaningful if a reference is well defined. Skjeltorp, Sojli, and Tham (2016) claim that market liquidity improves significantly when flash orders are introduced. However, we find no evidence that market liquidity on NASDAQ is insufficient before the introduction of flash orders. Neither do we find any sentence that implies that market liquidity is supplied in the right amount at that time. Based on the unknown reference, how can Skjeltorp, Sojli, and Tham claim that the market liquidity improvement is beneficial for all the listed stocks?

Liquidity is more meaningful when referring to one individual stock or other type of exchange-traded security. Certain large-cap popular stocks are very liquid and many small-cap stocks do not have sufficient liquidity or are even illiquid. Improvement of the entire market’s liquidity cannot exclude the possibility of adding unnecessary liquidity to overly liquid stocks without changing the illiquid status of other stocks. This possibility exists in the current reality dominated by high-frequency trading (Kauffman, Liu, & Ma, 2015). Several recent empirical studies show that high-frequency traders prefer low-priced liquid stocks (Brogaard, 2010; Gai, Yao, & Ye, 2013; Brogaard, Hendershott, & Riordan, 2014). The preference for very liquid stocks and a low price per share by high-frequency traders is understandable because they need to have quick and frequent turnover intraday. However, high-frequency traders provide substantial liquidity when liquidity is excessive (Partington, Philip, & Kwan, 2015).

DOES FLASH-ORDER FUNCTIONALITY INCREASE TRANSPARENCY FOR ALL INVESTORS?

“On the one hand, an *increase in transparency* leads to lower information asymmetry, which reduces adverse selection costs” (Skjeltorp, Sojli, & Tham, 2016, p. 168).

Assume that one million investors send their orders to NASDAQ on one typical trading day. The exchange flashes certain incoming orders to 100 subscribing high-frequency traders. Hence, these 100 user-traders enjoy the increased transparency which reduces their adverse selection costs. The other 999,900 investors do not have the same transparency. Furthermore, some of them encounter increased risk from being front-run, thus increasing their transaction cost. This is true particularly for slow investors who post large orders (Powell, 2014; Partington, Philip, & Kwan, 2015), just as Skjeltorp, Sojli, & Tham (2016) noted on p. 168: “On the other hand, transparency exposes liquidity traders to undue risk, which can reduce market liquidity, as liquidity providers are less willing to provide free options to the market in the form of limit orders.” How can this asymmetric transparency reduce adverse selection costs for all the investors in the entire market?

In fact, flash-order facility is not transparent for the majority of market participants but rather for only a few subscribing investors. This is similar to corporate executives tipping insider information to a few before public disclosure of earnings information.

DOES FLASH-ORDER FUNCTIONALITY PROMOTE COMPETITION FOR TRADING PROFIT AMONG MARKET PARTICIPANTS?

“The improvement in execution quality and trading costs for flash-order users in NASDAQ and BATS Global Markets (BATS), which increases interplatform competition, might trigger liquidity providers in other trading venues to compete more aggressively. Thus, the increase in interplatform competition among liquidity suppliers leads to an improvement in market-wide liquidity” (Skjeltorp, Sojli, & Tham, 2016, p. 167).

Skjeltorp, Sojli, and Tham (2016) find that flash-order users, who are likely high-frequency traders, benefit from the flash-order functionality by improving their execution quality and trading costs. However, the authors do not study what happens to those investors whose orders are flashed but who do not use the flash-order functionality. Nor do they study what occurs to other investors who simply follow flash-order users. The authors state that the flash-order functionality, which benefits a small portion of the market participants on NASDAQ, increases inter-exchange competition. However, the authors do not define this term. Does it mean that other exchanges will follow NASDAQ by introducing the flash-order functionality? If so, only a small number of flash-order users, who are almost certainly a few high-frequency traders or algorithmic traders, will benefit in those exchanges. This so-called inter-exchange competition only increases the episodes where participating exchanges’ order information is tipped to few flash-order users before dissemination to the entire market. It does not improve competition among all the participating investors for trading profit, but rather gives absolute advantage to the users while increasing transaction costs for the investors whose orders are flashed. In other words, the introduction of flash orders is more likely anti-competitive for the competition among all the market participants.

IS FLASH-ORDER FUNCTIONALITY SUNSHINE TRADING?

“A second potential explanation for our findings comes from the perspective of sunshine trading as modeled by Admati and Pfleiderer (1991), in which the preannouncement of trades (flash) by uninformed traders reduces overall riskbearing costs” (Skjeltorp, Sojli, & Tham, 2016, p. 167).

The prerequisite condition for sunshine trading is that the announcement of intended orders reaches all traders in the market (Admati & Pfleiderer, 1991), while in the case of flash orders, the announcement reaches only a small group of speedy traders. The number of those privileged traders represents a negligible percentage of all traders in NASDAQ. Obviously, Admati and Pfleiderer’s (1991) conclusion when there was no high-frequency trading does not support Skjeltorp, Sojli, and Tham’s (2016) claim. Rather, the concept of predatory trading developed by Brunnermeier and Pedersen (2005) fits the situation of flash orders very well.

In addition, sunshine trading means that the announcement of intent to trade is made by the traders voluntarily (Admati & Pfleiderer, 1991). However, no reference is given by Skjeltorp, Sojli, and Tham (2016) (p. 165) to support their argument that all the flash orders are voluntarily submitted. To the contrary, several lawsuits have recently been initiated by pension funds against exchanges such as BATS and NASDAQ over front-running by high-frequency traders who are given “preferred access to material trade data.” The consequence is increasing transaction costs for affected institutional investors (Powell, 2014). Pension funds and other institutional investors have been victimized by flash orders without their knowledge.

DISCUSSION AND CONCLUSION

It is common knowledge that a stock exchange is the most powerful monopoly relative to its participating investors. One fact is that the stock exchange possesses asymmetric market information over the participating investors. The asymmetric information includes order and trade data. This information has great price-moving potential. Once it is disseminated through brokers and other market data providers to the investing community, it carries enormous power to move the market. The power has three components. The primary one is the price-moving potential of the information. The second is the credibility of the information generator, the stock exchange that enjoys utmost credibility among all investors. The third is the publicity that the information gains after its dissemination to numerous investors simultaneously. Together they form the power that persuades a great number of investors to buy or sell stocks. This is an “information monopoly” on power, a term coined by Klein, Dalko, & Wang (2012).

Stock exchanges are privately owned in the United States. They have monopoly power in the form of information gathering and dissemination. They seek rent by selling order and trade information to brokers and market data providers. For example, the limit orders that rest on the order book are seen by numerous subscribing investors. As all professional investors and some retail investors have access to the limit order book at the same time, information asymmetry is virtually eliminated relative to most market participants. This scenario is similar to the earnings information disclosure by public companies to the entire market. The potentially price-moving corporate insider information, which was asymmetric, becomes public upon mandatory disclosure. Trading on the disclosed price-moving information without knowing it prior to its disclosure is not insider trading.

However, when the stock exchange “flashes” the incoming orders to a selected few before disclosing them to the market, what are the consequence to the market? The “flash” may be as brief as 30 milliseconds. Thus, flashes are too short for manual traders who are not faster than 0.1 seconds. However, 30 milliseconds is a long time for high-frequency traders whose order-processing takes as little as sub-microseconds. Thus, the subscribing traders are mainly high-frequency traders. They can front-run the market with sure profit. Most other market participants are not aware of the front-running trades occurring before the order information they have seen. This scenario is *de facto* the same as the stock exchange tipping the few subscribing high-frequency traders with insider information. This represents a conflict of interest with the investing public.

In the case of flash orders, the stock exchange possesses an information monopoly. The exchange profits from this monopoly by selling information to a few subscribing high-frequency traders. The latter utilize the information monopoly in their trading strategies. They make monopolistic profit by trading ahead of the public dissemination of the order information. Hence, flash-order subscribers act more like temporary insiders.

Based on the above analysis and references, we find it difficult to share the optimism expressed in Skjeltorp, Sojli, and Tham (2016) about flash orders’ role in promoting liquidity, transparency and competition. Nor do we find it similar to sunshine trading in today’s market dominated by high-frequency trading.

ENDNOTES

1. We are grateful for Dr. Xin Yan's inspiration during our idea generation. We thank Paulina Roszkowska for helpful comments. We are responsible for any errors in this article.
2. See <https://www.sec.gov/rules/proposed/2009/34-60684.pdf> [accessed December 29, 2016].

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