How Does Fair Participation Affect Investor Confidence?

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The mandate of the Securities and Exchange Commission (SEC), as established by the Securities Exchange Act of 1934 is:

"to remove impediments to and perfect the mechanism of a national market system for securities…and to insure the maintenance of fair and honest markets"

The national and global market system for securities has changed in recent years, neither by intent nor by design. New technology and the recent for-profit orientation of securities exchanges has led to the rise of a new class of securities market participants who dominate trading volume while profiting from an informational advantage. High-frequency traders are known for their short holding periods which are typically measured in microseconds (one millionth of a second) or up to 30 minutes (long-term). This blinding speed dominates order flows, easily accounting for a billion shares of trading volume per day on the New York Stock Exchange (NYSE).

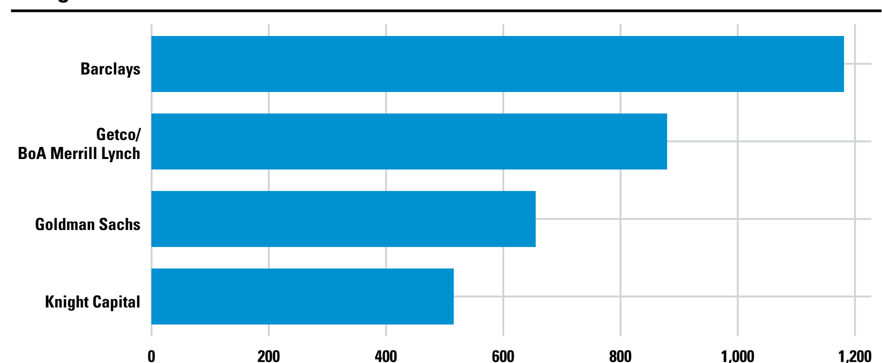
Since its inception the SEC has had a legislative mandate to create "fair and honest markets". Largely, the SEC has achieved this through adaptive rule making that is open to public commentary while implementing Congress's legislated changes. One of the largest legislative changes from Congress is the Dodd-Frank Wall Street Reform and Consumer Protection Act which has overwhelmed the SEC. Two years after the passage of the Dodd-Frank Act only 36% of its roughly 400 rules required by the Dodd-Frank Act have been written. The SEC has been charged with implementing 90 rules associated with the Dodd- Frank Act but Congress has not approved requested funding for the rule making and oversight. Two years after passage the SEC has struggled in the implementation of the 2,319-page Dodd-Frank Act, missing 71% of its deadlines.[1] The enormity of the Dodd-Frank Act has absorbed the lion's share of the SEC's resources and has left another pressing issue affecting investor confidence unattended.

Since its founding the SEC has implemented reforms that have strengthened the national market system for securities. To understand how far we have come one only needs to look at trading commissions. In 1975, the SEC mandated that fixed stock trading commissions be negotiated. Before deregulation, buying a stock cost investors a trading commission of $100 or more, depending on the number of shares. Today, stock commission quotes are moving towards the subpenny (less than a penny a share). The SEC has overseen a dramatic reduction in trading costs. In 1994, the SEC recommended stock quotes move to sixteenths. For the 200 years prior to that the spread between bid and ask of stock quotes had been eighths, which stemmed historically from Spanish pieces of eight. The SEC further mandated the decimalization of stock spreads in 2001. While decimalization has reduced the cost of trading, it has also driven out market specialists and market makers who created market liquidity by reducing stock price volatility and hence increasing investor confidence in the value of their investment.

High-frequency traders have evolved from the computerization of trading and thrive in an environment where trading is frictionless, i.e. non-material incremental cost. What are high-frequency traders? High-frequency-traders use extraordinarily high-speed networks and use sophisticated computer algorithms to execute trades at blinding speeds. To ensure the fastest response time possible they pay to collocate their servers next to the NYSE switches in the NYSE's 400,000 square-foot server farm in Mahwah, New Jersey.

To understand the evolution of high-frequency trading it helps to look back at an important anniversary-- Black Monday. On October 19, 1987, the value of the Dow Jones Industrial Average plunged a breathtaking 22% in a single day. At the time computer trading was blamed as a contributing factor; however, an offsetting factor at the NYSE was the market-making function performed by the specialist. During the Black Monday in 1987 there were 55 NYSE specialist firms helping buyers and sellers come together in a more orderly fashion than was observed on other exchanges. Today, the 55 specialist firms have been replaced by four Designated

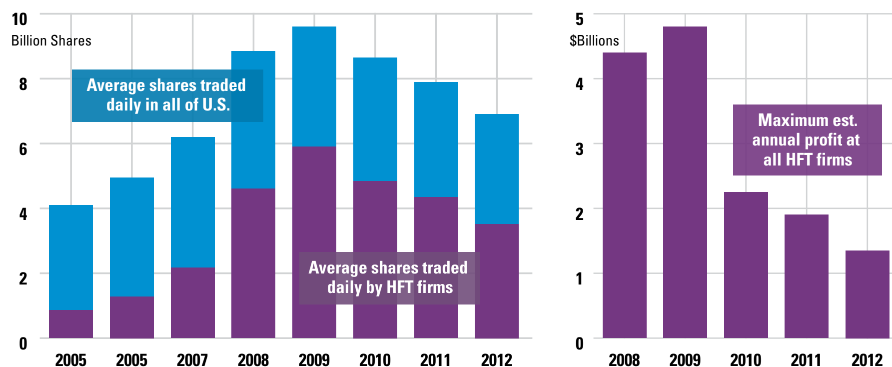
Figure 1: Number of NYSE-listed securities handled by each designated market-maker



Market Makers on the NYSE which is often referred to as the Big Board.

In a world where machines trade against machines, what is a NYSE Designated Market Maker? It is a proprietary high-frequency trading firm using algorithms to make markets in designated stocks on the NYSE. Today, more than 90% of NYSE trading is supported by algorithms[2]. In a world where the term "too big to fail" occurs with greater frequency there is considerable concentration among NYSE's Designated Market Makers. One Designated Market Maker, GETCO, LLC, detailed in the table below, is playing an ever expanding role.

Figure 2: High-Frequency Trading Volume and Profits



GETCO oversees the trading of 896 companies listed on the NYSE and 156 companies on what was formerly the American Stock Exchange.[3] Per GETCO's own statistics from June to August 2012 it participated in 24.4% of all NYSE trading, provided 19.8% of NYSE liquidity, and oversaw trading for 10 of the 30 stocks in the Dow Jones Industrial Average. GETCO's accomplishments are even more impressive if you consider that Knight Capital (then the 4th largest NYSE Designated Market Maker) almost went out of business after a software update last summer of their high-frequency trading algorithm created a crippling uncontrolled $440 million trading loss in a matter of hours. During Knight Capital's near-death experience, GETCO assumed Knight's Designated Market Maker responsibilities for an additional 524 NYSE stocks and 156 stocks on the NYSE MKT, formerly the NYSE Amex. On August 13 Knight Capital resumed its Designated Market Maker role on the NYSE after emergency capital infusions.

Who is GETCO? GETCO, LLC, is a private company based in Chicago. The number of GETCO employees is quite modest at over 400. What is not modest is the company's expanding political clout. It has hired as an advisor, Elizabeth King, the former Associate Director of the SEC's Trading and Markets Division. GETCO's advisors also include former Federal Reserve Governor Randall Kroszner and former SEC Chairman Arthur Levitt, who championed the SEC Fair Disclosure regulations.[4]

While trading volumes associated with high-frequency trading may be falling, the significance of this market force cannot be underestimated. Whether it be the "Flash Crash" of May 6, 2010, the flawed Facebook IPO in May, or numerous other mini-crashes, investor confidence in the markets has been damaged. In a zero-sum game, it is critical for investors to believe that markets are fair and honest. The profits from high-frequency trading are in the billions. This not to say high-frequency trading does not perform important market functions. High-frequency trading has lowered the bid/ask spread for investors. It has led to greater market efficiency by removing securities arbitrage across markets. In addition, high-frequency trading advocates claim market liquidity has been increased but a core issue is the lack of liquidity during flash crashes. High-frequency trading algorithms constantly seek shifts in market direction and seek to profit from the shift with enormous sell or buy orders that front run investors. Numerous high-frequency trading algorithms feeding off one another create a crowded trade with blinding speed that removes liquidity while increasing volatility.

From a participation perspective, all investors equally deserve fair and honest market access. An ongoing problem is that high-frequency trading at a millionth of a second creates informational disadvantages for buy-and-hold investors. The SEC needs to apply 'speed limits' and require a return to wider bid/ask spreads which will help attract market makers while reducing aggressive high-frequency trading strategies. Permitting front running of trades by market participants with advantaged information is akin to having a microphone in the boardroom. One of the most sought-after prey by high-frequency trading algorithms are the buy and

sell orders of large institutional money managers, such as T. Rowe Price[5]. Large institutional investors, which include mutual funds and pension funds, are derisively referred to as "whales" which can be exploited by front running orders. High-frequency traders use order stuffing ("spoofing") which changes the calculated opening price shown to buy-and-hold investors before the market opens. During market hours high-frequency traders engage in pinging with immediate-or-cancel orders which look for changes in market liquidity associated with order flow from large institutional investors.

The Canadian equivalent of the SEC, the Investment Regulatory Organization of Canada, has already started implementing rules that discourage excessive high-frequency trading. Canadian authorities are also considering applying Canada's Criminal Code to high-frequency traders engaging in intentional order stuffing. If passed, an indictable offense could result in a prison term of up to five years.[6] The Canadians are not alone. In September 2012, the German government started crafting legislation that will require high-frequency traders to register with the government while placing limits on order stuffing. Also, in September a European Union committee agreed to similar rules that would apply to the entire continent, if approved. At the same time the Australian Investments and Security Commission announced an initiative to bring high-frequency traders under stricter supervision to protect the country's markets "against the type of disruption we have seen in other markets."[7]

The seriousness of this issue can be seen in the SEC's Concept Release on Equity Market Structure dated January 21, 2010, which cited order cancelation rates among high-frequency traders exceeded 90%.[8] Another indicator of the value of millisecond trading advantages is seen in the fact that a Tradeworx subscription to high-frequency data feeds costs $250,000 a year. A number of market participants have observed that high-frequency trading is nothing more than Small Order Execution System (SOES) Bandits except with better technology. High-frequency trading profits by 'cutting in line'.

It is incumbent upon the SEC to do more to assure a fair and honest national market system which in turn will restore investor confidence. The loss of nearly a trillion dollars of market value in the "Flash Crash" points to a need for 'speed limits' on high-frequency trading and a return to wider bid/ask spreads which allows traditional market makers to provide liquidity. In September, the SEC fined the NYSE $5 million for sending private market data feeds faster than it provided public market data feeds. As this article goes to press at the end of October, more needs to be done to restore investor confidence and ensure fair participation.

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