

Recent civil and criminal enforcement action involving high frequency trading

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Abstract

Purpose – To alert high frequency trading firms to the increased regulation and prosecution of manipulative trading practices during 2014 and early 2015.

Design/methodology/approach – Reviews four significant proceedings against high frequency trading firms (and/or individuals employed by such firms) and other developments from the relevant government agencies as a possible preview of the enforcement and prosecution of high frequency trading practices in 2015. Provides advice to high frequency trading firms on how to decrease the risk of regulatory or criminal actions against them in this changing environment.

Findings – Although the focus on high frequency trading has only recently begun to intensify, firms should be aware of the increased enforcement activity of the past year. These actions, both regulatory and criminal, have already resulted in large penalties and have helped initiate a strengthening of rules and regulations regarding manipulative trading practices, of which firms need to be aware and stay current.

Practical implications – High frequency trading firms should be aware of the recent regulatory and criminal actions in order to better evaluate their own practices and controls, to ensure that their trading patterns do not resemble manipulative practices, and to avoid similar actions.

Originality/value – Practical guidance from experienced litigators and securities regulatory lawyers, including a former SEC Assistant Chief Litigation Counsel and a former federal prosecutor, that consolidates and describes several recent actions and developments in one piece.

Keywords Securities and Exchange Commission (SEC), High frequency trading, Enforcement, Market manipulation, Spoofing, USH department of justice

Paper type Technical paper

The past year provided several important reminders of government regulators' increased scrutiny of high-frequency trading ("HFT") firms. HFT, which has been called one of the most significant market structure developments in recent years[1], was the subject of Michael Lewis's April 2014 book *Flash Boys*, which alleged widespread misconduct involving HFT firms, including allegations of market manipulation, front running and conflicts of interest. Criminal and regulatory enforcement activity over the past year makes clear that the Securities and Exchange Commission ("SEC"), the Commodity Futures Trading Commission ("CFTC") and the US Department of Justice ("DOJ") are all taking a hard look at HFT, underscoring the risks faced by HFT firms. Below, we highlight several of the more significant developments affecting HFT during 2014 and early 2015.

Athena capital research

On October 16, 2014, the SEC brought its first enforcement action alleging market manipulation through HFT. The case involved Athena Capital Research, LLC ("Athena"), a New York City-based HFT firm, which agreed to pay a \$1 million penalty to settle the SEC's administrative charges, without admitting or denying the SEC's findings[2]. In its Order, the SEC found that during a six-month period in 2009, "using high-powered computers,

complex algorithms, and rapid-fire trades, Athena manipulated the closing prices of tens of thousands of [NASDAQ] stocks during the final seconds of almost every trading day”[3].

According to the SEC’s Order, Athena created a computer program – referred to internally as “Gravy” – to engage in a practice known as “marking the close,” which involved placing a large volume of last-second trades that allowed Athena to take the market’s available liquidity and “artificially push the market price – and therefore the closing price – in Athena’s favor”[4]. The SEC determined that by engaging in this practice, Athena comprised over 70 per cent of the NASDAQ trading volume in the targeted stocks during the seconds before the market close. The SEC further found that Athena focused its manipulative practices on trading in order imbalances. As explained in the SEC’s Order, “[i]mbalances for the close of trading occur when there are insufficient on-close orders to match buy and sell orders, i.e. when there are more on-close orders to buy shares than to sell shares (or vice versa), for any given stock”[5].

Near the end of each trading day, NASDAQ runs a closing auction to fill all on-close orders at a price targeted to the price of the stock in the continuous market. As part of this auction process, NASDAQ releases alerts – called Net Order Imbalance Indicators (“Imbalance Messages”) – to solicit offers to fill all on-close orders at the best price, which are sent 10 minutes before the end of the trading day. Upon the release of the first Imbalance Message, Athena placed orders to fill imbalances in a security (which would execute only in the event of an imbalance), and then traded shares on the continuous market on the opposite side of its order, using algorithms known as “accumulators.”

In its findings, the SEC relied on internal emails to conclude that Athena was well aware of the pricing impact of its strategies. For example, the SEC cited one instance in which an Athena manager – after observing that Gravy had accumulated only approximately 25 per cent of its target accumulation, which therefore had no price impact on the stock – e-mailed another Athena manager and Athena’s Chief Technology Officer, stating “make sure we always do our gravy with enough size.” The SEC further found that Athena balanced its orders so they were large enough to move the stock price but not so large that they attracted regulatory scrutiny or resulted in unacceptable trading risks. The SEC also noted that Athena continued to engage in its marking-the-close strategy even after receiving a NASDAQ automated Regulatory Alert – titled “Scrutiny on Expiration and Rebalance Days” – that stated that “Suspicious orders or quotes that are potentially intended to manipulate the opening or closing price will be reported immediately to FINRA”[6]. Athena’s Chief Technology Officer forwarded the alert to two Athena managers, stating: “Let’s make sure we don’t kill the golden goose.”

Visionary trading

The Athena case followed an earlier SEC action targeting “spoofing.” Spoofing creates the illusion of market forces in order to induce other traders to act. More particularly, spoofing involves the use of non-bona fide orders, or orders that a trader does not intend to have executed, to induce others to buy or sell a security or commodity at a price not representative of actual supply and demand. In April 2014, the SEC charged Joseph Dondero, co-owner of a New Jersey based-brokerage firm called Visionary Trading LLC (“Visionary”), with “spoofing” (also referred to by the SEC as “layering”), alleging that the practice violated Sections 9(a)(2) and 10(b) of the Securities Exchange Act of 1934 and Rule 10b-5[7]. According to the charges, Dondero repeatedly placed orders – with no intention of having them executed – to trick others into buying or selling a stock at an artificial price driven by the orders that the trader later canceled. The SEC charged that, by placing and then canceling layers of orders, Dondero created fluctuations in the national best bid or offer of a stock, increased order book depth, and used the non-bona fide orders to send false signals to other market participants who misinterpreted the layering as true demand for the stock. In settling the SEC’s charges, which also included additional violations against Visionary and other respondents, Dondero agreed to a bar from the

securities industry, and to pay disgorgement of approximately \$1.1 million and a penalty of \$785,000[8]. Although Visionary was not a HFT firm, the SEC's action is a warning to HFT firms and their employees engaged in strategies similar to spoofing or other forms of market manipulation. In fact, shortly after the SEC announced its enforcement action against Dondero, Andrew Ceresney, Director of the SEC's Division of Enforcement, stated in a speech to industry members that "the Enforcement Division has a number of ongoing investigations into HFT and automated trading to ferret out possible abuses such as market manipulation, spoofing, and related issues"[9].

SEC public statements

In addition to these enforcement actions, the SEC's public statements make clear the increased regulatory risks facing HFT firms. To be clear, the SEC has publicly stated that it does not view HFT practices generally as inherently improper. Indeed, in December 2014, the SEC published two papers, co-authored by an SEC economist, which highlight some of the benefits of HFT, including increased market liquidity and more efficient pricing for securities[10].

At the same time, the SEC has made clear that specific HFT strategies that resemble traditional forms of market manipulation or that cause market disruption may be subject to vigorous enforcement action and increased regulation. In announcing the *Athena* settlement, Director Ceresney stated that "[t]raders today can certainly use complex algorithms and take advantage of cutting-edge technology, but what happened here was fraud [. . .]. This action should send a clear message that the Commission and its Division of Enforcement have the expertise to investigate and charge even the most sophisticated fraudulent algorithmic trading strategies"[11]. SEC Chair Mary Jo White echoed these remarks, stating: "When high frequency traders cross the line and engage in fraud we will pursue them as we do with anyone who manipulates the markets"[12].

In a June 2014 speech, White announced that she had directed her staff to develop a recommendation for an anti-disruptive trading rule focused on HFT practices. Although White acknowledged that "the SEC should not roll back the technology clock or prohibit algorithmic trading," she stressed that the SEC was "assessing the extent to which specific elements of the computer-driven trading environment may be working against investors rather than for them"[13]. And, on a conference call with reporters regarding the *Athena* case, Director Ceresney reiterated that the SEC has "a number of other investigations" into computer-driven trading firms for manipulative activity[14].

Panther energy trading

Raising the stakes for HFT firms, in October 2014, a recent federal criminal indictment in Chicago marked the first time prosecutors brought criminal charges under the anti-spoofing provisions of the Commodity Exchange Act ("CEA"), which was enacted as part of the 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd Frank")[15].

On October 1, 2014, Michael Coscia, the New Jersey-based owner of Panther Energy Trading LLC, was charged with six counts of spoofing and six counts of commodities fraud[16]. Although the CEA has long prohibited commodities fraud, the government is prosecuting Coscia under relatively new statutory provisions. In 2009, Congress passed the Fraud Enforcement and Recovery Act, which expanded the fraud prohibition of 18 USC. §1,348 to include commodities futures and options. In addition, Congress criminalized spoofing of the commodities markets with the passage of the Dodd-Frank Act in 2010. The statute defines spoofing as making a bid or offer "with the intent to cancel the bid or offer before execution"[17].

According to the indictment, Coscia's scheme involved HFT computer programs that looked for market conditions such as price stability, low volume at the best prices, and

a narrow bid-ask spread because Coscia's fraudulent trading strategy worked best under these conditions. Coscia's HFT strategy involved entering large-volume orders that he intended to immediately cancel before they could be filled, which created a false impression regarding the number of contracts available in the market, and fraudulently induced other traders to react to this deceptive market information. According to the indictment, the strategy moved the market in a direction favorable to Coscia, enabling him to purchase contracts at prices lower than, or sell contracts at prices higher than, the prices available in the market before he entered and canceled his large-volume orders. Coscia then repeated this strategy in the opposite direction to immediately obtain a profit by buying futures contracts at a lower price than he paid for them, or by selling contracts at a higher price than he paid for them.

The indictment further alleges that the trading programs sometimes placed a "ping order" of one contract to test the market and ensure that conditions would allow his strategy to work well[18]. According to the charges, the programs were also designed to place several layers of "quote orders" on the other side of the market from his trade orders – either to buy contracts at a price higher than the prevailing offer, or to sell contracts at a price lower than the prevailing bid – to create the illusion of market interest[19]. The quote orders would typically be the largest orders in the market within three ticks (the minimum price increment at which a futures contract could trade) of the best bid or offer price, usually doubling or tripling the total quantity of contracts within the best bid or offer price. The indictment further alleges that Coscia designed his programs to cancel the quote orders within a fraction of a second automatically, without regard to market conditions, even if the market moved in a direction favorable to the quote orders[20]. In announcing the indictment, US Attorney Zachary Fardon stated: "Traders and investors deserve a level playing field, and when the field is tilted by market manipulators, regardless of their speed or sophistication, we will prosecute criminal violations to help ensure fairness and restore market integrity"[21].

The criminal case followed a 2013 CFTC civil enforcement action, in which the CFTC settled claims against Coscia and Panther, resulting in a \$1.4 million penalty, disgorgement of \$1.4 million in trading profits and a one-year ban from trading on any CFTC-registered entity[22]. In announcing the settlement, David Meister, CFTC's enforcement director at the time, stated: "While forms of algorithmic trading are of course lawful, using a computer program that is written to spoof the market is illegal and will not be tolerated. We will use the Dodd Frank anti-disruptive practices provision against schemes like this one to protect market participants and promote market integrity, particularly in the growing world of electronic trading platforms"[23].

Coscia and Panther also faced enforcement actions from the United Kingdom's Financial Conduct Authority and the CME Group. The Financial Conduct Authority imposed a \$900,000 penalty against Coscia relating to his manipulative trading activities on the ICE Futures Europe exchange[24]. The CME Group imposed a fine of \$800,000 and ordered disgorgement of approximately \$1.3 million against Coscia and Panther, along with a six-month trading ban[25].

Aleksandr milrud

More criminal charges over deceptive trade practices were brought in early 2015. On January 13, 2015, Aleksandr Milrud, a Canadian who targeted US markets with a manipulation scheme, was charged with conspiracy to commit securities fraud and wire fraud[26]. Similar to *Visionary Trading, supra*, the criminal complaint alleges that Milrud engineered a sophisticated spoofing[27] scheme that included using an illicit high-speed trading strategy to execute manipulative trades[28]. According to the complaint, Milrud also recruited and managed online traders in China, Korea, and possibly elsewhere to participate in his scheme. The complaint further alleges that Milrud worked with a software gaming company to develop "hot keys" that allowed his associates to quickly place and cancel multiple orders with only a few key strokes[29]. When discussing his strategy with

the owner of a registered foreign broker-dealer who turned out to be a cooperating witness for the government, Milrud explained that other market participants “see the volume, and they see the orders, they are starting to come in [. . .] and basically we trade against [them]. We get them sucked into the stock”[30]. Through this scheme, which primarily utilized stocks that were heavily traded and had high volume and liquidity to facilitate the fast-paced spoofing activity, Milrud allegedly was able to generate millions of dollars in illicit profits[31].

According to the government, Milrud attempted to conceal his spoofing scheme in several ways. He purportedly tried to open brokerage accounts at foreign firms because he believed those firms were subject to less regulatory scrutiny. The complaint also alleges that Milrud explained to a potential broker that his traders kept two accounts: the traders placed the non-bona-fide orders, or the “dirty work,” in one account; they executed the bona fide trades – those for which the price had been affected by the “dirty work” – in the second account. Milrud allegedly took substantial precautions to conceal connections among these accounts, such as requiring that they be held with different clearing firms, and that traders accessing the accounts use different user names and separate computers with different IP addresses[32].

In addition to the criminal complaint filed by DOJ, the SEC simultaneously filed a civil enforcement action against Milrud for multiple violations of the securities laws seeking disgorgement, civil penalties, and to enjoin him from further trading activities[33].

Guidance from the CFTC and exchanges

The CFTC has provided additional guidance concerning HFT and prohibited market manipulation strategies. In 2013, the CFTC issued interpretive guidance regarding its implementation of the Dodd Frank provisions focused on disruptive trading activities, including spoofing. The CFTC stated: “When distinguishing between legitimate trading (such as trading involving partial executions) and ‘spoofing,’ the Commission intends to evaluate the market context, the person’s pattern of trading activity (including fill characteristics), and other relevant facts and circumstances,” although the CFTC made clear that it “does not interpret [a spoofing] violation as requiring a pattern of activity [. . .] [and] even a single instance of trading activity can violate [the spoofing provision], provided that the activity is conducted with the prohibited intent.” The CFTC went on to provide four, non-exclusive examples of spoofing, including: (a) submitting or cancelling bids or offers to overload the quotation system of a registered entity, (b) submitting or cancelling bids or offers to delay another person’s execution of trades, (c) submitting or cancelling multiple bids or offers to create an appearance of false market depth, and (d) submitting or canceling bids or offers with intent to create artificial price[34]. In September 2013, the CFTC issued “Concept Release on Risk Controls and Safeguards for Automated Trading Environments,” which discusses the development of, and the risks and issues related to, automated trading, including HFT[35]. The Concept Release discusses numerous potential safeguards to guard against the risks of HFT, including post-trade reports and other post-trade measures and potential internal controls/system safeguards. Although the CFTC has not yet adopted rules or regulations relating to the issues identified in the Concept Release, this again underscores the intense spotlight that has been placed on HFT practices generally, and manipulative trading practices involving HFT more specifically.

Exchanges are also strengthening their rules prohibiting manipulative trading practices. On December 29, 2014, the Intercontinental Exchange, Inc. (“ICE”) amended its trade practice violations rule, Rule 4.02, to more directly prohibit spoofing. ICE announced that the amendments were intended to consolidate rules prohibiting disruptive trading and provide additional clarification as to the types of practices that are prohibited[36]. The amended rule now specifically prohibits “knowingly entering any bid or offer for the purpose of making a market price which does not reflect the true state of the market, or knowingly

entering, or causing to be entered, bids or offers other than in good faith for the purpose of executing *bona fide* transactions”[37]. ICE also issued FAQs regarding disruptive trading practices to provide market participants with guidance on how the exchange will interpret the new rule[38]. Similarly, on August 29, 2014, The CME Group announced that it was adopting a new Rule 575 prohibiting disruptive trading practices and codifying prohibitions on particular types of disruptive order entry and trading practices, including spoofing[39]. The new Rule 575 became effective on September 15, 2014[40].

Other developments underscore concerns beyond market manipulation

Other activity during 2014 highlights additional risks for HFT firms, beyond enforcement actions directed at market manipulation. For example, on April 4, 2014, Attorney General Eric Holder testified before a House Appropriations subcommittee on several topics, including HFT. Holder noted the recent elevated concerns about HFT, and confirmed that the DOJ was investigating whether some HFT practices violate insider trading laws[41].

In March 2014, New York Attorney General Eric Schneiderman announced his office’s probe into HFT practices, which Schneiderman has publicly referred to as “Insider Trading 2.0”[42]. According to Schneiderman, “there is some activity that probably does violate existing laws and there is some activity that doesn’t fall within the traditional categories of insider trading that probably should be made illegal. The laws and regulations have to be updated [. . .]”[43]. As part of his investigation, Schneiderman subpoenaed a number of New York- and Chicago-based HFT firms in April of this year. According to press reports, the subpoenas requested details about whether HFT firms have secret arrangements with stock exchanges or other trading venues, such as dark pools, that provide the opportunity to front-run other investors[44].

Implications for HFT firms

In this environment, it is critically important for HFT firms to develop compliance programs and safeguards to guard against manipulative trading practices and the risk of regulatory or criminal actions. As with all effective compliance programs, HFT firms should conduct and document periodic training. Periodic audits are also essential – HFT firms should actively monitor their traders, algorithms and trading systems. This monitoring should include procedures and controls to detect and prevent potential trading abuses – including non-fraudulent malfunctions that could be viewed as manipulation. Because intent may be difficult to disprove, HFT firms should make sure that their trading patterns do not resemble manipulative practices and, ideally, they should document the non-manipulative rationale(s) for the trading pattern or practice. Risk assessments should also analyze the agreements HFT firms have with particular exchanges or dark pools. HFT firms should also look to outside counsel with experience in these areas to assist in navigating this rough terrain and to help them respond in the event of a regulatory inquiry, or potential private litigation.

Notes

1. “SEC Concept Release on Equity Market Structure: Securities and Exchange Commission,” US Sec. & Exc. Comm’n, January 14, 2010, available at: www.sec.gov/rules/concept/2010/34-61358.pdf
2. Order Instituting Administrative and Cease-and-Desist Proceedings Pursuant to Section 21C of the Securities Exchange Act of 1934 and Section 203(e) of the Investment Advisors Act of 1940, Making Findings, and Imposing Remedial Sanctions and Cease-and-Desist Order, *In the Matter of Athena Capital Research, LLC*, No. 3-16199 (SEC October 16, 2014), available at: www.sec.gov/litigation/admin/2014/34-73369.pdf
3. *Id.* at 2.
4. *Id.* at 7.

5. *Id.* at 2.
6. *Id.* at 3.
7. Order Instituting Administrative Cease-and-Desist Proceedings Pursuant to Sections 15(b) and 21C of the Securities Exchange Act of 1934 and Section 9(b) of the Investment Company Act of 1940, Making Findings, and Imposing Remedial Sanctions and Cease-and-Desist Orders, *In the Matter of Visionary Trading LLC et al.*, No. 3-15823 (SEC April 4, 2014), available at: www.sec.gov/litigation/admin/2014/34-71871.pdf
8. Press Release 2014-67, *SEC Charges Owner of N.J.-Based Brokerage Firm with Manipulative Trading*, US Sec. & Exc. Comm'n, (April 4, 2014), available at: www.sec.gov/News/PressRelease/Detail/PressRelease/1370541406190#.Uz7U8vldVg2
9. Yin Wilczek, *SEC Decision to Seek Admissions Unilateral, Not Open to Negotiation, Head Enforcer Says*, Bloomberg BNA White Collar Crime Report (April 30, 2014).
10. Austin Gerig & David Michayluk, *Automated Liquidity Provision*, US Securities & Exchange Comm'n Division of Economic and Risk Analysis (December 1, 2014), available at: www.sec.gov/dera#.VJnx-V4DJA; Austin Gerig & Daniel Fricke, *Liquidity Risk, Speculative Trade, and the Optimal Latency of Financial Markets and Automated Liquidity Provision*, US Securities & Exchange Comm'n Division of Economic and Risk Analysis (December 1, 2014), available at: www.sec.gov/dera#.VJnx-V4DJA; see also Ed Beeson, *SEC Studies Say High Frequency Trading Has Benefits*, Law360 (Dec. 4, 2014), available at: www.law360.com/articles/601661/sec-studies-say-high-frequency-trading-has-benefits
11. Press Release 2014-229, US Sec. & Exc. Comm'n, *SEC Charges New York-Based High Frequency Trading Firm With Fraudulent Trading To Manipulate Closing Prices* (October 16, 2014), available at: www.sec.gov/News/PressRelease/Detail/PressRelease/1370543184457
12. *Id.*
13. Mary Jo White, Chair, US Sec. & Exc. Comm'n, *Enhancing Our Equity Market Structure* (June 5, 2014), available at: www.sec.gov/News/Speech/Detail/Speech/1370542004312
14. Bradley Hope, *High-Frequency Trader Athena Capital Settles Stock-Manipulation Charges*, Wall St. J., October 16, 2014, available at: <http://online.wsj.com/articles/athena-capital-settles-stock-manipulation-charges-with-sec-1413486055>
15. Pub. L. No. 111-203 § 747, 124 Stat. 1376, 1739 (2010) (the "Dodd-Frank Act") (codified at Commodity Exch. Act § 4c(a)(5)(C); 7 U.S.C. § 6c(a)(5)(C)).
16. Indictment, *United States v. Coscia*, No. 14-CR-00551 (N.D. Ill. October 1, 2014) available at: <https://ia801405.us.archive.org/1/items/gov.uscourts.ilnd.301298/gov.uscourts.ilnd.301298.1.0.pdf>
17. 7 U.S.C. § 6c(a)(5)(C).
18. Indictment, *supra* note 16.
19. *Id.*
20. *Id.*
21. Press Release, *High Frequency Trader indicted for Manipulating Commodities Futures Markets in First Federal Prosecution for Spoofing*, US Attorney's Office (October 2, 2014), available at: www.fbi.gov/chicago/press-releases/2014/high-frequency-trader-indicted-for-manipulating-commodities-futures-markets-in-first-federal-prosecution-for-spoofing
22. *In the Matter of Panther Energy Trading LLC and Michael Coscia*, CFTC Docket No. 13-26 (July 22, 2013).
23. Release PR6649-13, *CFTC Orders Panther Energy Trading LLC and its Principal Michael J. Coscia to Pay \$2.8 Million and Bans Them from Trading for One Year, for Spoofing in Numerous Commodity Futures Contracts*, US Commodity Futures Trading Comm'n (July 22, 2013), available at: www.cftc.gov/PressRoom/PressReleases/pr6649-13

24. Final Notice: Michael Cosica, FCA (July 22, 2013).
25. Panther Energy Trading Trade Notice, CME 11-8581-BC (July 22, 2013).
26. Criminal Complaint, *United States v. Milrud*, No. 15-mj-07001 (D.N.J. filed Jan. 12, 2015), available at: www.justice.gov/usao/nj/Press/files/pdf/2015/Milrud,%20Aleksandr%20Complaint.pdf
27. The terms "layering" and "spoofing" were used interchangeably in the Complaint. *Id.* at 3.
28. *Id.* at 4.
29. *Id.* at 5.
30. *Id.* at 7.
31. *Id.* at 4.
32. *Id.* at 6.
33. Complaint, *Securities & Exchange Comm'n v. Milrud*, No. 15-cv-00237 (D.N.J. January 13, 2015), available at: www.sec.gov/litigation/complaints/2015/comp-pr2015-4.pdf
34. Antidisruptive Practices Authority, 78 Fed. Reg. 31,890-31,897 (May 28, 2013), available at: www.cftc.gov/ucm/groups/public/@newsroom/documents/file/federalregister051613d.pdf
35. Concept Release on Risk Controls and System Safeguards for Automated Trading Environments, 78 Fed. Reg. 56,541-56,574 (September 12, 2013), available at: www.cftc.gov/ucm/groups/public/@newsroom/documents/file/federalregister090913.pdf
36. Exchange Notice, *Disruptive Trading Practices*, ICE Futures US, Inc., December 29, 2014.
37. *Id.*
38. *Disruptive Trading Practices FAQs*, ICE Futures US, Inc., January 2015.
39. CME Group, Inc. Market Regulation Advisory Notice, *Disruptive Practices Prohibited*, August 29, 2014.
40. *Id.*
41. Press Release, *Attorney General Eric Holder Testifies Before US House Appropriations Subcommittee on Commerce, Justice, Science, and Related Agencies*, US Dep't of Justice (April 4, 2014), available at: www.justice.gov/opa/speech/attorney-general-eric-holder-testifies-us-house-appropriations-subcommittee-commerce
42. Scott Patterson, *N.Y. Attorney General Sends Subpoenas to High-Speed Firms*, WALL ST. J. (April 16, 2014), available at: www.wsj.com/articles/SB10001424052702304626304579505931086501344
43. Press Release, *CNBC Transcript: New York Attorney General Eric Schneiderman Discusses Frequency Trading on CNBC's "Closing Bell" Today*, CNBC (April 4, 2014), available at: www.cnbc.com/id/101556757
44. Patterson, *supra* note 42.

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