

U.S. V. SARAO: THE FLASH CRASH AND A NEW EFFORT TO PROSECUTE MARKET MANIPULATION AND DECEPTIVE TRADING PRACTICES

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INTRODUCTION

In 2010, the Wall Street Flash Crash¹ caused the United States to experience a trillion-dollar stock market crash.² Within a few minutes, the Dow Jones index lost nearly 9% of its value, which wiped off hundreds of billions of dollars from the share prices of established companies such as Proctor & Gamble and General Electric. Taking advantage of technological advances, traders and brokers used computer algorithms on the floors of stock exchanges to illegally outpace other market participants when trading stocks and securities. The Flash Crash is a concrete example that, as technology advances, stock exchanges are increasingly vulnerable to market manipulation and deceptive trading practices.

Historically, manipulation of the technology used on stock exchanges has not always been as it is today. Brokers directing orders to different parties to be executed in financial markets, also known as order flow, first became computerized in the early 1970's with the introduction of the "designated

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¹ "American share and futures indices went into a seemingly inexplicable tailspin, falling 10% in a matter of minutes, with some blue-chip shares briefly trading at a penny, only to recover most of the lost ground before the end of the trading day." *One big, big trade*, *ECONOMIST* (Oct. 1, 2010, 6:42 PM),

http://www.economist.com/blogs/newsbook/2010/10/what_caused_flash_crash [<https://perma.cc/EQT4-9J3D>].

² Jessica Corso, *Flash Crash Trader Pleads Guilty in 2010 Incident*, *LAW360*, (Nov. 9, 2017), <https://www.law360.com/articles/861149> [<https://perma.cc/88DE-UN5Z>].

order turnaround” system (“DOT,” and later renamed “SuperDOT”) on the New York Stock Exchange.³ The DOT system routed orders electronically to the proper trading post and would then execute the trades manually.⁴ The “opening automated reporting system” (“OARS”) aided trading specialists in determining the market clearing opening price, which is the monetary value assigned to each stock⁵ (known as “Smart Order Routing” or “SOR”).⁶ These systems evolved into the more popular algorithms used on the exchanges today, including VWAP, Target Close Pegged, Percentage of Volume, and Implementation Shortfall.⁷

Navinder Singh Sarao, a futures trader from the United Kingdom, was one of the players who used market manipulation tactics to induce the 2010 market crash. Sarao used one of these algorithms to engage in an illegal practice called “spoofing.”⁸ Spoofers create illusions of market demand by bidding for stocks and other securities at a rate much higher than they are actually worth and then subsequently canceling their orders before they are filled.⁹ The intense market activity around the buying and selling these stock orders attracts other traders to bid for these stocks, resulting in security-price manipulation.¹⁰ Spoofers benefit from the market's reaction because they can

³ *Timeline*, SEC. & EXCH. COMM’N HISTORICAL SOC’Y, <http://www.sechistorical.org/museum/timeline/1970-timeline.php> (last visited Feb. 19, 2017) [<https://perma.cc/5HD3-7L2C>].

⁴ *Electronic Trading: SuperDOT*, INVESTOPEDIA, <http://www.investopedia.com/university/electronictrading/trading4.asp> (last visited Mar. 31, 2017) [<https://perma.cc/BUZ7-QUGF>].

⁵ *Clearing Price*, INVESTOPEDIA, <http://www.investopedia.com/terms/c/clearingprice.asp> (last visited Feb. 19, 2017) [<https://perma.cc/EFE4-QRGV>].

⁶ *Opening Automated Reporting Service*, FIN. DICTIONARY, <http://financial-dictionary.thefreedictionary.com/Opening+Automated+Reporting+System> (last visited Feb. 19, 2017) [<https://perma.cc/SX2E-DM28>].

⁷ Renee W. Caruthers, *An Algorithmic Explosion*, SILICON INVESTOR (Dec. 3, 2004, 2:49:56 PM), www.siliconinvestor.com/readmsg.aspx?msgid=20824975 [<https://perma.cc/BK2F-P2AP>].

⁸ Press Release, Dep’t of Justice, Futures Trader Charged with Illegally Manipulating Stock Market, Contributing to the May 2010 Market ‘Flash Crash,’ (Apr. 21, 2015), <https://www.justice.gov/opa/pr/futures-trader-charged-illegally-manipulating-stock-market-contributing-may-2010-market-flash> [<https://perma.cc/FS4K-XGAP>]; Indictment, United States v. Sarao, No. 15-cr-00075 (N.D. Ill. Sept. 2, 2015), <https://www.justice.gov/criminal-fraud/file/910206/download> [<https://perma.cc/RW8U-6NLN>].

⁹ *Quote Stuffing*, INVESTOPEDIA, <http://www.investopedia.com/terms/q/quote-stuffing.asp?ad=dirN&qo=investopediaSiteSearch&qsrc=0&o=40186> (last visited Feb. 19, 2017) [<https://perma.cc/S2Q3-MK77>].

¹⁰ *Id.*

influence the rise and fall of share prices and buy and sell stock options accordingly.¹¹

As a response to the 2010 market crash, United States' lawmakers, the Department of Justice's Criminal Fraud Section ("DOJ"), and the U.S. Commodity Futures Trading Commission ("CFTC") began enforcing laws that prohibited illegal activity in securities markets. This comment analyzes Sarao's prosecution in the United States and his subsequent extradition, which resulted from his illegal "spoofing" activities. Additionally, this comment analyzes the DOJ's recent increased prosecution of actors engaging in market manipulation. Moreover, this comment will propose an alternative prosecution method in light of the outdated legislation surrounding specific types of computational trading vehicles.

ANALYSIS

In 2015, five years after the Flash Crash, both the CFTC and the DOJ filed civil and criminal actions against Sarao. The DOJ indicted Sarao on twenty-two criminal counts, including spoofing, wire fraud, commodities fraud, and commodity price manipulation.¹² The DOJ's evidence supported that Sarao placed several simultaneous large-volume orders at various prices on the Chicago Mercantile Exchange (CME).¹³ Sarao utilized a modified automated trading program to execute these orders and cancel them before they were fully processed. By doing so, he created the false appearance that there was a substantial stock supply, which fraudulently induced other market participants to react by selling or buying stocks. This mechanism artificially lowered the price of these stocks and resulted in many brokers purchasing Sarao's orders with inflated prices.¹⁴ By artificially adjusting several stock prices on the market, Sarao was able to induce false market perception, causing several stocks to crash and thousands of individuals to lose money on the market.

Although Sarao took a plea agreement, several implications result from this case. First, the U.S. government finally realized how outdated the legislation is for these new types of computational trading vehicles, including the computer algorithms and high-frequency trading programs used on the exchanges. Congress adopted the Dodd-Frank Wall Street Reform and

¹¹ *Id.*

¹² Indictment, *supra* note 8.

¹³ *Id.*

¹⁴ *Id.*

Consumer Protection Act as a response to the market crashes caused by manipulative practices, such as those used by Sarao.¹⁵ However, there continues to be an increase in these types of incidents, which are likely resulting from top executive's desire to increase their compensation (which is generally linked to his or her company's stock prices) and ensuring their company survives in an increasingly unstable economy.¹⁶ Fortunately, federal authorities are bringing more cases involving market manipulation.¹⁷ Sarao's case will serve as a legal framework that will encourage prosecutors to bring market manipulation cases based on allegation of spoofing. Additionally, the cooperation between the United States and the United Kingdom authorities with regard to Sarao's extradition and subsequent trial in the United States signifies a likely trend that there will be international enforcement of market manipulation practices. The United States and several other countries are now actively prosecuting spoofing and other market manipulation cases, which were previously thought to be "too vaguely defined" to be prosecuted.¹⁸

CONCLUSION

Although Sarao entered into a plea agreement with the DOJ in November 2016, the U.S. Congress and the DOJ have focused on ways to prevent and outlaw market manipulation and to expand United States' jurisdiction abroad. In the meantime, traders and brokers must be aware that

¹⁵ The new Trump administration is looking to repeal certain parts of this legislation. See Ben Protess & Julie Hirschfeld Davis, *Trump Moves to Roll Back Obama-Era Financial Regulations*, N.Y. TIMES (Feb. 3, 2017), https://www.nytimes.com/2017/02/03/business/dealbook/trump-congress-financial-regulations.html?_r=0 [https://perma.cc/9DMU-F9UE].

¹⁶ James Kaplan, *Why Corporate Fraud is on the Rise*, FORBES (June 10, 2010), <http://www.forbes.com/2010/06/10/corporate-fraud-executive-compensation-personal-finance-risk-list-2-10-kaplan.html> [https://perma.cc/73VW-ZH2P].

¹⁷ Press Release, Dep't of Justice U.S. Attorney's Office S. Dist. N.Y., *Father And Son Sentenced In Manhattan Federal Court For Market Manipulation Scheme* (Feb. 16, 2017), <https://www.justice.gov/usao-sdny/pr/father-and-son-sentenced-manhattan-federal-court-market-manipulation-scheme> [https://perma.cc/A9FH-T3R4]; Press Release, Dep't of Justice U.S. Attorney's Office S. Dist. N.Y., *John Galanis Pleads Guilty In Manhattan Federal Court To Market Manipulation* (July 20, 2016), <https://www.justice.gov/usao-sdny/pr/john-galanis-pleads-guilty-manhattan-federal-court-market-manipulation> [https://perma.cc/5KEQ-WURA].

¹⁸ Richard Satran, *Spoofing or just fast trading? Chicago case helps unwrap mystery*, REUTERS (Nov. 19, 2015), <http://blogs.reuters.com/financial-regulatory-forum/2015/11/19/spoofing-or-just-fast-trading-chicago-case-helps-unwrap-mystery/> [https://perma.cc/2ZFF-BZT5].

the law is catching up to technology and that the DOJ is actively pursuing those that previously might have been able to use technology to avoid lawsuits.

As government actors continue to examine ways to prevent market manipulation a proper understanding of the technology used by financial markets is essential in balancing free trade and protection of consumers' rights