Are You Afraid of the Dark?: How the New York Attorney General Is Shedding Light on Dark Pools and High Frequency Trading

"And then there is maybe the greatest cost of all: Once very smart people are paid huge sums of money to exploit the flaws in the financial system, they have the spectacularly destructive incentive to screw the system up further, or to remain silent as they watch it being screwed up by others."¹

I. INTRODUCTION

Similar to nearly every industry in the world, technology forever changed Wall Street.² Electronic trading effectively started to replace human buyers and sellers in the early 1990s, but few could anticipate the speeds at which high-frequency trades occur today.³ Savvy quants—mathematicians who use quantitative techniques to make market predictions—began to dominate the finance world in the early 2000s through the use and development of complex trading strategies and algorithms.⁴ These changes altered the trading landscape as more venues, known as pools, became available to participants in the U.S. equity market, such as the dark pool alternative trading system (ATS).⁵ Dark pools became attractive to investors because, unlike trading in “lit”

². See id. at 3-4 (highlighting gradual shift toward computerized trading after 1987 stock market crash). The human traders on the floor of the New York Stock Exchange are merely anachronisms used for television clips; “[t]he U.S. stock market now trades inside black boxes, in heavily guarded buildings in New Jersey and Chicago.” Id. at 3.
³. See SCOTT PATTERSON, DARK POOLS: THE RISE OF THE MACHINE TRADERS AND THE RIGGING OF THE U.S. STOCK MARKET 7 (Crown Bus. ed., 2013) (analyzing change in market dynamic due to trading at warp speeds devoid of human contact); see also LEWIS, supra note 1, at 9 (emphasizing prior trade speed’s human limits). The only constraint now is the distance between data centers. See LEWIS, supra note 1, at 9. Today trades can occur at millisecond speeds; a trade from Chicago to New York takes about a tenth of the time it takes to blink. See id. at 9-10.
⁴. See PATTERSON, supra note 3, at 333-34 (acknowledging transition from white-collar financiers to programming prodigies and expert mathematicians).
pools, such as New York Stock Exchange (NYSE) or National Association of Securities Dealers Automated Quotation (NASDAQ), trading that occurs in dark pools does not reveal buyer or seller identities, and transactions are not initially displayed to the public. This structure is ideal for investors looking to make large trades because it cloaks investors’ actions from competitors, minimizing price movements and predatory trading. The obscurity of these pools, in conjunction with the sophisticated minds behind these trades, ultimately led to widespread manipulation and legal front-running.

Until June 2015, there had been little legal action against the firms taking advantage of investors through high-frequency trading (HFT). The New York

6. See Patterson, supra note 3, at 5 (detailing reasons for investors’ switch to controversial dark pool trading). These pools had many attractive qualities—such as their lack of transparency—but also their novelty meant they were virtually unregulated. See id. at 5; see also Lewis, supra note 1, at 42-43 (noting only brokers who run dark pools know what orders occur in real time); Mercurio, supra note 5, at 69-70 (outlining various investor incentives for trading in dark pools); Scott Patterson, ‘Dark Pools’ Face Scrutiny, WALL ST. J. (June 5, 2013, 9:55 PM), http://www.wsj.com/articles/SB10001424127887324069104578527361102049152 (indicating advantages and reservations behind these “lightly regulated, off-exchange trading venues”).


Attorney General (NY AG), Eric Schneiderman, brought the first big case under a little-known state law from the 1920s, the Martin Act, which grants the NY AG the power to regulate and investigate securities fraud. In efforts to boost investor confidence and ensure the markets work for the entire general public, Schneiderman hopes to stifle the fundamentally unfair situations that HFT has created at the expense of the rest of the market.

This Note aims to provide a useful overview of the development of the U.S. stock market and show how lawsuits, such as the one against Barclays, will shape the U.S. stock market’s future. Part II of this Note will present a detailed assessment of HFT, relevant SEC regulations, and a history of the Martin Act. Part III will discuss the current case against Barclays and how regulators should proceed in handling contemporary dark pool and HFT crises affecting the U.S. stock market and, in turn, its investors. This Note advocates for an approach that seeks a balance between a free market economy and clear regulations, so as to avoid further market exploitation.


12. See infra Parts II-III.

13. See infra Part II.

14. See infra Part III.

II. HISTORY

A. From Buttonwood Trees to Pushing Buttons

In mid-May of 1792, twenty-four brokers stood under a buttonwood tree on Wall Street and signed an agreement that would start the trade of securities and create what is known today as the NYSE.\(^\text{16}\) Although trading still conjures up an image of a frantic exchange floor, crowded with men yelling in expensive suits, that picture is no longer accurate.\(^\text{17}\) Virtually no traders have worked on the floor since 2007, a trend that began after the 1987 stock market crash.\(^\text{18}\) When the market fell by 22.61% on Black Monday, October 19, 1987, brokers deliberately did not answer their phones, making it impossible for small investors to sell stocks; this response, or lack thereof, triggered the gradual switch to computers.\(^\text{19}\)

At the time of the Black Monday crash, nearly all trades went through middlemen, known as market makers.\(^\text{20}\) This system forced ordinary Americans to utilize these brokers if they wanted to trade on the major exchanges; thus their services came at a hefty fee.\(^\text{21}\) This fee, called the “spread,” was the difference between what the market maker paid for a stock

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18. See LEWIS, supra note 1, at 3 (tracing technological shift back to 1987 crash, when rules changed to favor computers).

19. See id. at 2-3, 99 (explaining shift to computers leveled playing field for small investors).

20. See PATTERSON, supra note 3, at 73-74 (defining role of middlemen in context of stock transactions). Market maker is the common terminology associated with these middlemen brokers; however, brokers from NASDAQ were officially called market makers, and brokers from NYSE were technically called specialists. See id.; see also Edwin Batista, A Shot in the Dark: An Analysis of the SEC’s Response to the Rise of Dark Pools, 14 J. HIGH TECH. L. 83, 87-88 (2014) (describing market-maker phenomenon preceding computerized trade matching).

21. See IRENE ALDRIDGE, HIGH-FREQUENCY TRADING: A PRACTICAL GUIDE TO ALGORITHMIC STRATEGIES AND TRADING SYSTEMS 10 (John Wiley & Sons, Inc. ed., 2d ed. 2010) (emphasizing market makers’ position at center and most profitable level of financial hierarchy); PATTERSON, supra note 3, at 73 (detailing profitability scheme for market makers); Batista, supra note 20, at 87-88 (noting market makers capitalized on their intermediary status, earning immense profits off processing trades).
and what he charged to sell it back to investors.\footnote{See \textit{Patterson}, supra note 3, at 73 (elucidating “spread” concept behind market-maker pay structure).} For decades, market makers were the financial elite, profiting off of the average Joe saving for retirement and college educations; this exploitation spurred the movement to computerized trading, as both programmers and the SEC sought to level the playing field through eliminating these middlemen.\footnote{See \textit{id.} at 73-74 (exposing greed of market makers and reasoning for switch to direct trades); \textit{Lewis}, supra note 1, at 99-100 (stipulating SEC’s response to 1987 crash as way to eliminate forced reliance on market makers). At this time, regulators mandated a Small Order Execution System (SOES), which allowed ordinary investors to send orders to the market electronically and bypass the use of middlemen. See \textit{Lewis}, supra note 1, at 100. Regulators addressed the problem at hand, but again failed to think through potential consequences: advanced traders quickly gamed SOES, which put the little guy at a disadvantage. See \textit{id}; see also Jerry W. Markham & Daniel J. Harty, \textit{For Whom the Bell Tolls: The Demise of Exchange Trading Floors and the Growth of ECNs}, 33 J. CORP. L. 865, 900 (2008) (indicating deficiencies behind SOES regulation used to relegate market makers); Batista, supra note 20, at 87-88 (emphasizing market makers earned “enormous profits” at expense of common investor). The shift to decimalization, or the trading of stocks in pennies, also propelled the switch to HFT because it was more difficult for human traders and significantly narrowed profit margins. See \textit{Lewis}, supra note 1, at 109; \textit{Patterson}, supra note 3, at 34 (explaining decimalization’s negative effect on market-maker profits). Ron Paul remarked, “Tragically, the innocent who understand little about the complexity of the monetary system suffer the most, while those who are in the know reap great profits whether the market is going up or down.” \textit{RON PAUL, END THE FED} 2 (2009).} The crash of 1987 serves as more than a turning point in this analytical timeline: it reveals the interconnectedness of the events in Wall Street’s insidious history that have contributed—and are strikingly analogous—to the current situation involving HFT and dark pools.\footnote{See \textit{Lewis}, supra note 1, at 99-101 (connecting current and past market injustices and citing 1987 crash as first form of HFT). Lewis calls attention to the patterns of unscrupulous behavior on Wall Street, which have continually led to targeted SEC regulations that ultimately create new loopholes for exploiting investors. \textit{See id.} Even Machiavelli in the early 1500’s recognized this political paradox: “For one change always leaves a dovetail into which another will fit.” \textit{Niccolò Machiavelli, The Prince} 15 (Paul Moliken et al. eds., N.H. Thomson trans., Prestwick House ed. 2005). Former transactional trader and businessman, Nassim Nicholas Taleb, adeptly describes this exact conundrum: “Because of opacity [in complex systems], an intervention leads to unforeseen consequences, followed by apologies about the ‘unforeseen’ aspect of the consequences, then to another intervention to correct the secondary effects, leading to an explosive series of branching ‘unforeseen’ responses, each one worse than the preceding one.” \textit{NASSIM NICHOLAS TALEB, ANTFRAGILE: THINGS THAT GAIN FROM DISORDER} 11 (Random House, Inc. ed., 2012); cf. Markham & Harty, \textit{supra} note 23, at 903 (asserting adoption of electronic trading initially equivalent to “the democratization of the financial markets”); Aubrey Gallo, Note, \textit{Dark Pool Liquidity}, 29 REV. BANKING & FIN. L. 88, 93 (2009) (explaining recent intention of SEC regulation and its inadvertent outcome); David Bogoslaw, \textit{Big Traders Dive Into Dark Pools}, \textit{Businessweek} (Oct. 3, 2007), \url{http://www.businessweek.com/stories/2007-10-03/big-traders-dive-into-dark-pools/businessweek-business-news-stock-market-and-financial-advice} [\url{http://perma.cc/V6DD-LB5Z}] (arguing SEC policy change encouraged use of ATCs and yielded different result than intended). Nobel Prize winning economist, Milton Friedman, said, “One of the great mistakes is to judge policies and programs by their intentions rather than their results.” \url{WPIX New York, The Open Mind with Richard D. Heffner: Interview with Milton Friedman, YouTube} (Dec. 7, 1975), \url{https://www.youtube.com/watch?v=1dFpyiE5mBE} [\url{http://perma.cc/FN45-74R5}] [hereinafter \textit{Interview with Milton Friedman}]; see also Hilary J. Allen, \textit{A New Philosophy for Financial Stability Regulation}, 45 LOY. U. CHI. L.J. 173, 178 (2013) (noting uncertainty behind regulator efforts given complex nature of financial industry).}
B. Need for Speed

Until 2002, eighty-five percent of stocks were traded on either the NYSE or the NASDAQ (never both), but three years later, the two exchanges became public, for-profit corporations. This transition incited an influx of competition, and, by 2008, there were thirteen exchanges, and stocks were no longer limited to trading on a single one. The SEC initially pushed the exchanges to incorporate in efforts to respond to public complaints of “cronyism” into their practices, though arguably this change just prompted the creation of a new hierarchy centered on speed.

Electronic trading utilized order-matching algorithms to bring buyers and sellers together, capitalizing on operational efficiencies and risk management, while simultaneously decreasing transaction costs and trading errors. While spreads were significantly smaller than those that market makers made, HFT firms cashed in, due to the sheer volume of transactions they were able to execute in seconds, or more specifically, microseconds. In addition to pure

25. See LEWIS, supra note 1, at 34-35 (citing exchanges’ shift from utilities to publically-owned corporations as catalyst for changed industry landscape). Dan Mathisson, creator of the nation’s largest dark pool, Credit Suisse’s Crossfinder, described this switch as the root cause of the market’s HFT problem today; the exchanges were so focused on the bottom line that they failed to “maintain[] a healthy venue for companies to list stocks and for investors to profit from the growth of American capital.” PATTERSON, supra note 3, at 341.


27. See LEWIS, supra note 1, at 35 (stating pressure from SEC and general public led to incorporation of main stock exchanges). This is another event in Wall Street’s history that began with concrete, benevolent intentions, but served to lay the foundation for a strikingly similar, yet even graver problem. See id. at 68-69. “The U.S. stock market was now a class system, rooted in speed, of have-nots and have-nots . . . . The have-haves enjoyed a perfect view of the market; the have-nots never saw the market at all.” Id. at 69; see also Jeremy Grant, High-Frequency Trading: Up Against a Band Saw, FIN. TIMES (Sept. 2, 2010, 10:21 PM), http://www.webcitation.org/61qVvXXS [http://perma.cc/55ST-EVMV] (remarking shift to HFT created “playground for specialised trading” working against capital formation). The original function of the stock market was specifically to foster capital formation, which some believe has been significantly undermined, due to the switch to computerized trading. See Grant, supra. The greater number of exchanges and venues available to traders today, which all have varying systems, speeds, and fees, have created widespread fragmentation, leading to the exploitation of operational differences of exchanges and venues, but little economic benefit or positive effect on capital formation. See id. Furthermore, this fragmentation, coupled with HFT, is especially troubling to experienced traders because it vitiates two important and basic functions of the market: “orderly and fair price formation.” Id.

28. See PATTERSON, supra note 3, at 256 (emphasizing increased monetary, transparency, safety, and efficiency as justifications of HFT); Markham & Harty, supra note 23, at 903-04 (discussing benefits of electronic trading and algorithms).

29. See PATTERSON, supra note 3, at 35 (articulating economics and strategy of HFT). Despite thinner spreads, HFT took advantage of scale at almost no risk by continually reinvesting a small amount of money. See id. Scale is practically an understatement because while trades were happening in milliseconds in the early 2000s—“two hundred times the average speed of human thought”—they are now happening in one-millionth of a second (a microsecond). Id. at 206. Up to this point, exchanges used fiber optic cables and even
1. Coding Decoded

The algorithms high-frequency traders used are so complex that it took some time for even experienced traders to understand what occurred behind trades.31 Algorithms begin by first determining the best way to slice up an order because orders are typically large and attempting to buy all the shares at once would drive up the price.32 In addition to determining the number of shares to be purchased, the algorithms also dictate when to purchase orders, as well as at what price.33 These algorithms, known as order types, communicate trader intentions and indicate how buy or sell orders should interact with other

See Scott Patterson, High-Speed Stock Traders Turn to Laser Beams, WALL ST. J. (Feb. 11, 2014, 11:00 PM), http://www.wsj.com/articles/SB10001424052702303947947904579340711424615716. This, however, may be a thing of the past, as there is talk that at least one major Wall Street bank has backed Anova Technologies, LLC’s project to link exchange data centers by laser. See id. (describing “technological arms race” in efforts to increase trade speeds and efficiency); see also Alyse Gould, Regulating High-Frequency Trading: Man v. Machine, 12 J. HIGH TECH. L. 273, 282-83 (2011) (noting cost and risk advantages of HFT, as well as superior profitability structure). Increased profitability from HFT stems not only from the ability to trade large quantities at fast speeds, but also from the significant cost efficiencies derived from executing more accurate trades that require minimal human interaction. See Gould, supra, at 283.

30. See Patterson, supra note 3, at 47-48 (discussing common uses of order types in HFT); see also Lewis, supra note 1, at 61, 63 (explaining latency concept and importance of colocation in decreasing trade times); Gould, supra note 29, at 283 (outlining variety of order types and strategies used).

31. See Lewis, supra note 1, at 31-34 (detailing how HFT order types initially baffled experienced traders and technologists); Michael Lewis, Wall Street’s Flash Mob, VANITY FAIR, Apr. 2015, at 114-18, http://www.vanityfair.com/news/2015/03/michael-lewis-flash-boys-one-year-later [http://perma.cc/MQ79-NWCP] (reiterating complexity of situation which served financial intermediaries, despite its potentially innocent origins). Brad Katsuyama, former Global Head of Electronic Sales and Trading at Royal Bank of Canada, was among the first to discover the puzzling effects of complex HFT order types, which were causing his company to suffer significant losses. See Lewis, supra note 1, at 34. He initially described the phenomenon “as if someone knew what he was trying to do and was reacting to his desire to sell before he had fully expressed it.” Id. at 32. Experienced trader and Wall Street insider, Haim Bodek, also shared Katsuyama’s suspicion that his computer was not bugged, but rather there was a greater cause affecting his trades. See Patterson, supra note 3, at 47-48. Bodek’s firm, like most in the country, used order algorithms, but it took an exchange representative divulging nonpublic information for Bodek to learn how orders were being abused. See id. at 47-48. “We are witnessing the rise of a new class of inverse heroes, that is, bureaucrats, bankers . . . and academics with too much power and no real downside and/or accountability. They game the system while citizens pay the price.” Taleb, supra note 24, at 6.

32. See Aldridge, supra note 21, at 277-80 (recognizing importance of slicing order in preventing dilution of profitability); Lewis, supra note 1, at 74-75 (detailing how algorithms breakdown large orders for cost effective reasons); Michael Mackenzie, U.S.: High Frequency Trading Dominates the Debate, FIN. TIMES (Oct. 20, 2009, 4:57 PM), http://www.ft.com/cms/s/0/fa347c26-bc41-11de-9426-00144feab49a.html [http://perma.cc/NP4Q-QRC4] (noting breakdown of large orders commonplace in today’s equity market). “The main objective of high frequency traders involves minimising risk and posting small deal sizes that enable them to move in and out of trades extremely quickly, arbitraging between spreads available on different exchanges and platforms, and even between the speed of trading available on them.” Mackenzie, supra.

33. See Lewis, supra note 1, at 74-76 (articulating different trader decisions communicated through order algorithms).
orders. Limit orders are most prevalent, as they allow traders to specify constraints, whereas market orders instruct the exchange to buy regardless of market conditions. More complex, compound orders, not widely known by the general trading community, quickly surpassed these original order types; this is one angle high-frequency traders utilized to swindle investors.

2. Location, Location, Location

In addition to abusing the plain limit orders, high-frequency traders also exploited server proximity, which gave high-frequency traders market data before everyone else; this coveted proximity became known as colocation. Despite the fact that some exchanges are located hundreds of miles apart, this propinquity gave traders access to price information even faster than if they were to be located on the same street. This dramatically affected high-frequency traders put their servers in the same building as the exchange and as close to the exchange’s matching engine as possible, giving them an unparalleled speed advantage. See id. “Colocation” would form the backbone of high-frequency trading and eventually become the model for how securities were traded everywhere, with giant server-packed data centers rising up around the world.” Patterson, supra note 3, at 200. In 2010, the NYSE built a 400,000 square foot building in New Jersey that allowed trading firms to put their servers next to the NYSE’s matching engine; a pod there cost up to $10,000 per month, and this was just the first of many trading data centers. See id. at 281-83. Interestingly, e-commerce power player, Amazon, also decided to utilize colocation by moving into a Proctor & Gamble warehouse in an effort to: get into the everyday product market; increase sales channels by “piggybacking” on supplier warehouses and distribution networks; reduce moving and storage costs, subsequently enabling them to better compete with Wal-Mart and club stores, like Costco Wholesale Corporation; and further cut the time it takes to reach the consumer. See Andre Mouton, Amazon Considers ‘Co-location’ with Proctor & Gamble, USA TODAY (Oct. 21, 2013, 12:59 PM), http://www.usatoday.com/story/tech/2013/10/21/amazon-proctor-gamble-products/3143773/ [http://perma.cc/GY5M-L5BC] (discussing economical upsides of colocation and potential downsides because of low-margin items and shipping costs); Serena Ng, Soap Opera: Amazon Moves in with P&G, WALL ST. J. (Oct. 14, 2013, 10:52 PM), http://online.wsj.com/news/articles/SB1000142405270230330904579315840230 674458 (focusing on Amazon’s ability to better compete with price, while providing even faster delivery); Yuki Noguchi, Moving in with Manufacturers, Amazon Delivers a New Approach, NPR (Oct. 28, 2013, 11:58 AM), http://www.npr.org/2013/10/28/240742832/moving-in-with-manufacturers-amazon-delivers-a-new-approach (communicating vast benefits of colocation, including expansion of Amazon’s warehouse footprint and new sales channels).

34. See Patterson, supra note 3, at 47 (explaining function of order types and how they interface with exchanges to communicate trades).
35. See id. (introducing common order types and their respective communicative functions); see also Lewis, supra note 1, at 169 (explaining creation of limit order as means to diminish risk of market orders).
36. See Lewis, supra note 1, at 170-71 (highlighting enigmatic qualities of new and multi-faceted order types). The order types that began to surface were like puzzles: “written in a language barely resembling English and seemingly designed to bewilder anyone who dared to read them.” Id. at 170. The order types themselves were excessively complicated, but so were their true purposes—orders were not necessarily made to actually make trades, but rather to obtain information about the behavior and intentions of other investors at the lowest possible cost and risk. See id. at 171.
37. See Lewis, supra note 1, at 79 (explaining effects of proximity to exchange servers). High-frequency traders put their servers in the same building as the exchange and as close to the exchange’s matching engine as possible, giving them an unparalleled speed advantage. See id. “Colocation” would form the backbone of high-frequency trading and eventually become the model for how securities were traded everywhere, with giant server-packed data centers rising up around the world.” Patterson, supra note 3, at 200. In 2010, the NYSE built a 400,000 square foot building in New Jersey that allowed trading firms to put their servers next to the NYSE’s matching engine; a pod there cost up to $10,000 per month, and this was just the first of many trading data centers. See id. at 281-83. Interestingly, e-commerce power player, Amazon, also decided to utilize colocation by moving into a Proctor & Gamble warehouse in an effort to: get into the everyday product market; increase sales channels by “piggybacking” on supplier warehouses and distribution networks; reduce moving and storage costs, subsequently enabling them to better compete with Wal-Mart and club stores, like Costco Wholesale Corporation; and further cut the time it takes to reach the consumer. See Andre Mouton, Amazon Considers ‘Co-location’ with Proctor & Gamble, USA TODAY (Oct. 21, 2013, 12:59 PM), http://www.usatoday.com/story/tech/2013/10/21/amazon-proctor-gamble-products/3143773/ [http://perma.cc/GY5M-L5BC] (discussing economical upsides of colocation and potential downsides because of low-margin items and shipping costs); Serena Ng, Soap Opera: Amazon Moves in with P&G, WALL ST. J. (Oct. 14, 2013, 10:52 PM), http://online.wsj.com/news/articles/SB1000142405270230330904579315840230 674458 (focusing on Amazon’s ability to better compete with price, while providing even faster delivery); Yuki Noguchi, Moving in with Manufacturers, Amazon Delivers a New Approach, NPR (Oct. 28, 2013, 11:58 AM), http://www.npr.org/2013/10/28/240742832/moving-in-with-manufacturers-amazon-delivers-a-new-approach (communicating vast benefits of colocation, including expansion of Amazon’s warehouse footprint and new sales channels).
38. See Michael J. McGowan, Note, The Rise of Computerized High Frequency Trading: Use and Controversy, 2010 DUKE L. & TECH. REV. 16, ¶ 20 (2010) (discussing benefits of colocation and its profitability scheme for high-frequency traders); Mackenzie, supra note 32 (elucidating arbitrage concept and how it relates to colocation). For instance, if a given stock was selling for two cents fewer on one exchange,
frequency traders’ profits because, as a result of their advance knowledge, they were able to capitalize on price discrepancies between exchanges.39 Traders began to use this same strategy to also profit off price discrepancies between dark pools and the lit market.40 This strategy benefited both public and private exchanges, as it incentivized traders to fragment the marketplace; more sites, where the same stocks changed hands, meant more opportunities to front-run investors.41 Many critics contend that, over the years, SEC regulations inadvertently supported the proliferation of dark pool trading and, more generally, HFT.42

C. Regulators or Instigators?: A Brief History of the SEC and Relevant Regulations

Following the Depression and the Stock Market Crash of 1929, the federal government decided to regulate the securities market, which subsequently led to the enactment of the Securities Act of 1933 and the Securities Exchange Act of 1934 that created the SEC. These regulations were designed to prevent deceit, manipulation, and abuse of influence in the securities market.43 In the 1990s, the rise of electronic trading and the expansion of derivatives markets brought new challenges for the SEC. The SEC implemented Reg NMS in 2007 to standardize trading procedures, reduce latency, and improve price discovery in the market. However, it exposed hidden risks and unintended consequences.

39. See supra note 3 and accompanying text (emphasizing advantages gained from exploiting colocation).

40. See Patterson, supra note 3, at 202 (describing latency arbitrage and exploitation of price discrepancies between dark and lit pools). High-frequency traders profit in these transactions because of the “latency” of the system, or the length of time it takes information to move from point A to point B. Id. Similar to most HFT strategies, profits are individually small, but add up significantly, as they are done thousands of times per day; financial market research and advisory firm, TABB Group, estimated that latency arbitrage strategies aggregated an excess of $21 billion in annual profits in 2009. See Rob Iati, The Real Story of Trading Software Espionage, INFORMATIONWEEK WALLSTREET & TECH. (July 10, 2009, 12:32 PM), http://www.wallstreetandtech.com/trading-technology/the-real-story-of-trading-software-espionage/a/d-id/1262125? [http://perma.cc/PN97-GZXZ]. The SEC played right into the high-frequency traders’ latency game through the 2007 implementation of Reg NMS, which, despite good intentions, effectively gave a small class of insiders the ability to preview the market and trade on that knowledge. See Lewis, supra note 1, at 98 (explaining unintended consequences of implementing Reg NMS).

41. See Lewis, supra note 1, at 111 (acknowledging high-frequency traders’ motivation behind market fragmentation). Over the last few years, trading has increasingly shifted from public exchanges, like NYSE, to private platforms, like dark pools. See Nathaniel Popper, As Market Heats Up, Trading Slips into Shadows, N.Y. TIMES (Mar. 31, 2013), http://www.nytimes.com/2013/04/01/business/as-market-heats-up-trading-slips-into-shadows.html?pagewanted=all& r=0. In 2013, an estimated forty percent of stock trading took place away from the public exchanges; regulators, as well as critics of HFT and dark pools, worry it would ultimately “obscure the true prices of stocks and scare away ordinary investors.” Id. In addition to fears of impaired price competition, critics also argue this shift simply serves to shield manipulative practices. See Davilas, supra note 7.

42. See Lewis, supra note 1, at 97-98 (highlighting unintended consequences of SEC’s Reg NMS loophole and its substantive effect on HFT); Patterson, supra note 3, at 245 (maintaining Reg NMS institutionalized high-frequency traders’ ability to apply strategies to heavily traded stocks); Davilas, supra note 7 (indicating original intentions of Reg NMS and incidental encouragement of dark pools). Nassim Taleb compares the decisions of policy-makers to “mistak[ing] the economy for a washing machine that continuously needs fixing (by him) and blow[ing] it up.” Taleb, supra note 24, at 10. Finally, free market proponent, Milton Friedman, emphasized that greed occurs in every system, and inhibiting individuals from pursuing their own interests by instead forcing them to succumb to bureaucratic orders serves only to weaken that system. See Interview with Milton Friedman, supra note 24.
of 1934 (‘34 Act). The former affects the primary market and sought to mandate disclosure of material information by issuers. The latter, which created the SEC, focuses on secondary market transactions—those made between investors with little involvement by the original issuer. In 1975, Congress enacted Section 11A of the ‘34 Act, linking the various securities markets through increased communication and updated data processing facilities, known as securities information processors (SIP). The objective of this national market system was to increase overall market efficiency and enhance competition by disclosing more information to brokers, dealers, and investors. Following this structural change, dark pools emerged in the 1980s and remained formally unregulated until the adoption of Regulation ATS (Reg ATS) in 1998.

Due to the increase in private pools, Reg ATS mandated these venues to either register as a broker, become an official exchange, or remain exempt due to limited transaction volumes. By authorizing the existence of these other venues, the SEC concurrently expressed its dissatisfaction with the exchange duopoly present at the time. Many of the properties that make dark pools


44. See id. at 399 (detailing main objective of Securities Act of 1933 and its effect on issuers).

45. See id. at 400 (explaining effects of the ‘34 Act and its impact on investors).

46. See Davilas, supra note 7 (describing congressional enactment of Section 11A of ‘34 Act). The SIP’s original intention was to provide a real-time snapshot of the U.S. stock market and foster market fairness; HFT, however, ultimately undermined this objective. See LEWIS, supra note 1, at 97.

47. See 15 U.S.C. § 78k-1 (2012) (stating economic efficiency and fair competition as public interest concerns); see also Davilas, supra note 7 (elucidating general concept and advantages of national market system).

48. See Patterson, supra note 3, at 154 (explaining purpose behind new set of regulations surrounding dark pools); Davilas, supra note 7 (remarking on history of dark pools and their initial independence from regulation); Yuka Hayashi, Regulators Propose Rules To Shed Light on Dark Pools, WALL ST. J. (Nov. 18, 2015), http://www.wsj.com/articles/regulators-propose-rules-to-shed-light-on-dark-pools-1447888364 (noting lack of updates to regulations relating to ATSs).

49. See SEC Regulations for ATS, 17 C.F.R. § 242.301 (2014) (detailing requirements for every ATS); see also Patterson, supra note 3, at 153-54 (explaining shift to electronic trading prompted new requirements for ATSs).

50. See McGowan, supra note 38, ¶ 10 (emphasizing SEC underlying message through authorization of alternative venues). Just before the SEC issued Reg ATS in 1998, electronic pools were changing the game entirely and simultaneously weakening the more established bourses; “[b]ig money—the biggest money—was rolling into [private] pools.” Patterson, supra note 3, at 153. The exemption in Reg ATS, which allowed trading to occur without disclosure so long as the trading volume of a given stock remained under five percent, also propelled the growth of dark pool trading because institutional investors sought ways to cloak their trades. See Roberta S. Karmel, IOSCO’s Response to the Financial Crisis, 37 J. CORP. L. 849, 892-93 (2012) (explaining additional theory for influx of dark pool trading after Reg ATS); Popper, supra note 41 (explaining forty percent of trading now occurs in dark pools, accentuating migration to private platforms).
attractive to investors, such as their opacity, nonetheless undercut the fundamental principles of the national market system’s structure.\footnote{See Davilas, supra note 7 (highlighting competing interests of ‘34 Act and Reg ATS). The dubious properties of trading in the dark have ultimately led to regulator distrust—a major reason why the practice has not gained the same popularity in Europe. See Jeremy Kahn, Trading in the Dark, BLOOMBERG BUS. (July 6, 2015, 7:01 PM), http://www.bloomberg.com/news/articles/2015-07-06/trading-exchange-dark-pools-face-new-competition-in-europe [http://perma.cc/SR8H-M5WN] (offering international perspective and alternative to dark pools).} For instance, a major challenge posed by the existence of dark pools is that they increase competition among individual markets, known as “fragmentation,” which, as previously mentioned, works to the detriment of individual orders.\footnote{See Davilas, supra note 7 (reiterating negative impacts of fragmentation on individual orders and overall market fairness); see also supra note 40 (discussing drawbacks of fragmentation and how high-frequency traders have capitalized upon it). “Our markets work best when everyone plays by the same set of rules, when information is provided to the market at the same time, and when capital is actually put at risk. Latency arbitrage runs counter to those principles.” Eric T. Schneiderman, The Need for Speed Is Costing Billions, N.Y. DAILY NEWS (Apr. 3, 2014, 4:30 AM), http://www.nydailynews.com/opinion/speed-costing-billions-article-1.1743553.} The SEC attempted to counteract this widespread fragmentation and restore the national market system to its former glory through the implementation of Reg NMS in 2007.\footnote{See Patterson, supra note 3, at 49 (denoting initial objectives behind adoption of Reg NMS). “[I]t had been an attempt to bind together the fragmented electronic marketplace into a single interlinked web of trading—a true national market system.” Id.; see also Davilas, supra note 7 (explaining how adoption of Reg NMS fits into history and future of dark pool trading).}

Reg NMS was a seemingly sensible response by the SEC; like most regulations, however, it inadvertently led to a string of consequences that ultimately thwarted the intended objective.\footnote{See Lewis, supra note 1, at 97-98 (delineating ramifications of Reg NMS despite SEC’s best efforts and intentions); Patterson, supra note 3, at 49, 239 (diminishing acumen of SEC and explaining severity of market-structure quirks caused by Reg NMS); see also McGowan, supra note 38, ¶ 13 (concluding Reg NMS as catalyst for “current electronic trading revolution”).} The SEC formerly held brokers who represented investors to a loose standard of “best execution” when handling stock market orders, but to address front-running concerns, Reg NMS now requires brokers to find the best market prices.\footnote{See SEC Regulation NMS, 17 C.F.R. § 242.600(b)(7)-(8) (2015) (defining bid and offer to exclude indications of interest); see also Davilas, supra note 7 (expressing impact on dark pools from mandating best market price under Reg NMS).} The definition of best price stemmed from the National Best Bid and Offer (NBBO) concept, which selects the lowest ask price and highest bid price across the exchanges; even if a broker could not buy all desired shares at that price, Reg NMS mandates he start there before moving to other exchanges.\footnote{See Lewis, supra note 1, at 96-98 (explaining NBBO concept and its effects on orders routed under Reg NMS rules); Definition of ‘National Best Bid and Offer - NBBO,’ INVESTOPEDIA, http://www.investopedia.com/terms/n/nbbo.asp (last visited Nov. 19, 2013) [http://perma.cc/Y8K9-ECGP] (explaining average person sees NBBO price).} Consequently, the required routing of orders made it easy for high-frequency traders to predict where orders would be sent and, in turn, cultivated more opportunities for front-
There is, however, a glaring loophole that allows high-frequency traders to circumvent Reg NMS rules entirely: the failure to specify the speed of the SIP that calculated the NBBO. The technology used to perform calculations for the SIP was outdated, so high-frequency traders created their own, much faster SIP and now have an invaluable picture of the market about twenty-five milliseconds before ordinary investors.

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57. See LEWIS, supra note 1, at 97-98 (stipulating consequences of NBBO requirement and how it unintentionally accommodated front-running by high-frequency traders). In addition to the problems caused by routing orders to the venue with the best price, changing prices also affected the order queue—"the lineup of buy or sell orders ranked according to priority (whoever was first in line got the trade)." PATTERSON, supra note 3, at 49. To please their customers, exchanges soon developed new order types to address the frustration of rerouting; one special type allowed orders at a specific price point to remain hidden at the front of the queue, maintaining their priority and pushing other orders behind it, while the market was still moving. See id. at 49-50. Brokers further abused plain vanilla limit orders because they could unknowingly drop right onto these special, hidden orders and be forced to pay the exchange’s charge to “take” liquidity. See id. at 50. It is widely noted that the addition of complex regulations cannot only destabilize the financial system, but it can also “create opportunities for regulatory arbitrage,” such as what we see in this instance of front-running. Allen, supra note 24, at 187.

58. See LEWIS, supra note 1, at 97-98 (explaining how failure to specify SIP speed led to more market unfairness and HFT dominance); PATTERSON, supra note 3, at 49 (noting vast undertaking of mandating NBBO and how calculation really needed “industrial strength computer power”).

D. Backed by Nothing but the Blue Sky

Prior to the creation of the SEC, individual state laws, known colloquially as blue-sky laws, regulated the offering and sale of securities to protect against fraud. The SEC has since preempted many of those laws, but some, unknowingly to most people, still remain; the one relevant to this Note is New York’s Martin Act. Arguably the most powerful blue-sky law, the Martin Act delegates a considerable, and controversial, amount of power to the NY AG to regulate and investigate securities fraud. While fraud can be difficult to prove under federal law, it is extraordinarily straightforward under the Martin Act: one must demonstrate that there has been some misrepresentation or omission of a material fact during the sale or promotion of securities. Moreover, the NY AG’s discretion is not subject to judicial review when dealing with a Martin Act violation. Unsurprisingly, most cases lead to a hefty settlement because public investigations are fair game under the Act, which gives the NY AG incredible leverage.

After a period of dormancy since its inception in 1921, Eliot Spitzer, former NY AG, utilized the Martin Act’s power to go after big banks for the first time in history. He began with Merrill Lynch, then Salomon Smith Barney, and,

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60. See Klein et al., supra note 43, at 414 (describing blue sky laws and their functionality prior to SEC’s existence); Pisani, supra note 10 (describing blue sky laws’ namesake and how they filled void of protection for investors).


64. See People v. Bunge Corp., 250 N.E.2d 204, 208 (N.Y. 1969) (holding NY AG must be given complete discretion, as intervention could jeopardize purpose of suit); Baker, supra note 62, at 7-8 (remarking on breadth of power and unparalleled discretion given to NY AG under Martin Act).

65. See Baker, supra note 62, at 6-8 (describing how authorization of public investigations gives NY AG leverage in reaching settlements); Pisani, supra note 10 (explaining reason for higher percentage of settlements under Martin Act).

eventually, he secured a $1.4 billion settlement with ten other investment-banking firms. 67 He gained a national reputation as an activist against the duplicitous conduct on Wall Street, leveling the playing field to the benefit of the average American. 68 His many critics, however, asserted that he recklessly attacked corporate America at a particularly volatile time—just after 9/11—doing little to alter the bullish distribution in the market, and focusing more on elevating his own political stature. 69

As part of his Insider Trading 2.0 Initiative, current NY AG, Eric Schneiderman, also decided to wage war against a major financial institution, Barclays, through the use of the Martin Act. 70 Schneiderman accused the bank of running its dark pool, at one time the second largest in the country, for the benefit of high-frequency traders. 71 The complaint alleges Barclays also misrepresented how client orders were routed, in addition to downplaying the degree to which high-frequency traders were involved with their ATS. 72 Given the Act’s ascendency, Barclays attempted to have the case dismissed; it argued the Martin Act does not apply to the operation of dark pools, which fall under the SEC’s federal oversight, but the NY AG’s office quickly countered by

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68. See McIntire, supra note 66 (noting viewpoints on Spitzer after his attack on Wall Street institutions).

69. See id. (acknowledging Spitzer’s attacks “bordered on reckless”); see also Brett Nelson, A Decade After Eliot Spitzer’s Crusade, “Sell” Is Still a Dirty Word on Wall Street, FORBES (Sept. 27, 2012, 9:38 AM), http://www.forbes.com/sites/brettnelson/2012/09/27/a-decade-after-eliot-spitzers-crusade-sell-is-still-a-dirty-word-on-wall-street/ (comparing market ratings before Spitzer’s global settlement to those in 2009). Bullish ratings, or those substantiated by analyst investors who believe the stock price will rise, which dominated the market in previous years, have surprisingly continued to rise despite Spitzer’s now decade-old crusade. See Nelson, supra. In addition to Spitzer’s crusade perhaps not being an ideal way to regulate markets, it seems incongruous that a state-elected official could affect the Nikkei Index so significantly and impose penalties that seemingly do not match the harms. See Thompson, supra note 66 (delineating pitfalls and consequences following Spitzer’s prolific use of Martin Act).

70. See generally Barclays Complaint, supra note 9; Schneiderman, supra note 11 (detailing role in oversight of Wall Street and ensuring market works for entire investing public); supra note 9 and accompanying text (describing potential for similar NY AG suit against Credit Suisse).

71. See Barclays Complaint, supra note 9, at 1-4, 7 (describing allegations against Barclays and their dark pool, Barclays LX); see also Patterson & Johnson, supra note 9 (providing figure regarding Barclays’s dark pool size); Pisani, supra note 10 (giving overview of Barclays case and stated accusations).

72. See Patterson & Johnson, supra note 9 (expanding on allegations made against Barclays in suit NY AG Schneiderman brought).
emphasizing the Act’s well-established scope. The suit certainly came at a time when dark pools and HFT faced increased scrutiny, so perhaps Schneiderman would receive less flack than Spitzer for targeting the big bank.

In February 2015, months after the filing of the Barclays lawsuit, Justice Shirley Werner Kornreich of the State Supreme Court in Manhattan rejected Barclays’s effort to dismiss the case; if the allegations were true, Justice Kornreich felt failure to investigate further would diminish investor confidence and compromise the integrity of dark pools. Despite affirming Schneiderman’s ability to pursue a claim, Justice Kornreich clarified that this would not turn into a “battle over the legality of high-speed trading,” nor would the NY AG’s cursory public policy arguments sway the court.

III. Analysis

A. Marring the Martin Act

Given the latitude of the Martin Act and the leverage it grants the NY AG, it is refreshing to see Justice Kornreich’s skepticism as to why the institutional investors, allegedly harmed by the bank, had not brought private suits instead, and she berated the NY AG for failing to include specifics in the complaint.


75. See Stempel, supra note 73 (detailing Justice Kornreich’s reasoning for not quashing NY AG’s case against Barclays).

76. Id. In deciding to move forward with the case, Justice Kornreich shared her apprehension about whether Schneiderman raised a valid Martin Act claim, and, given the sophistication of the dark pool investors affected, she emphasized that he will have to provide many specifics to show the bank lied. See id. During oral arguments, Justice Kornreich said, “How is anybody going to defend against this? . . . It is so conclusory that I have no clue what we’re talking about . . . there are absolutely no specifics in this complaint.” Chon, supra note 73; see also Dolmetsch, supra note 9 (noting Justice Kornreich’s emphasis on how platform has “significant impact on [ ] outcome of a trade”).

77. See Stempel, supra note 73 (highlighting areas of weakness in state’s argument against Barclays); see also Chon, supra note 73 (acknowledging deficiencies of Barclays case, which troubled Justice Kornreich). At
While most would agree that HFT and dark pool activity deserve scrutiny, commencing actions pursuant to the Martin Act seems far less agreeable.\textsuperscript{78} Up to this point, the New York courts have given carte blanche to the prosecution by continually strengthening this archaic law, and there is a traceable pattern of abuse from Spitzer to Schneiderman.\textsuperscript{79} Today, instead of simply protecting the public from financial fraud, the Martin Act serves primarily as a political tool designed to boost reputation and secure reelection; thus, it is a concerning course of action, even for an industry that admittedly needs attention.\textsuperscript{80}

\textbf{B. Pooling our Resources}

As mentioned, many of the problems plaguing the U.S. stock market today have stemmed from imprudent government regulations; a better and more appropriate response may come from those who know the situation best: the high-frequency traders themselves.\textsuperscript{81} While this solution may seem

this point, several private lawsuits had been filed against the bank on behalf of the entire class of dark pool users, but the fact that the NY AG initially brought the case was concerning to the judge, especially given the complaint’s vagueness. See Chon, supra note 73. One investor class action suit alleges violations of the ‘34 Act and damages stemming from the drop in Barclays’s stock price after the announcement of the NY AG’s suit. See Beehler & Berndt, supra note 73. The other investor class action suit in California also does not address the legality of HFT specifically, but rather makes similar allegations to those Schneiderman made; the class incurred damages because the bank allegedly allowed high-frequency traders to trade ahead of “traditional investors,” making prices less favorable. See id.

\textsuperscript{78}. See Olson, supra note 66 (tracing problematic history of Martin Act and its line of abuse by NY AGs). This article captured the gravity of the consequences stemming from politicians’ continued use of the Martin Act in the last decade, including Spitzer and now Schneiderman: “I don’t like crumbums and grifters either, but might we not be better off if someone had stuck up for their due process rights back when?” Id.; see also Koreto, supra note 62 (stating Martin Act both unnecessary and particularly damaging due to its extension of powers).

\textsuperscript{79}. See Olson, supra note 66 (indicating business landscape expanded powers under Martin Act while gradually diminishing others’ due process rights). The Martin Act was initially effective in forcing swindlers out of New York and into states with less effective policing; since few established businesses pushed back, however, the law’s terms were dangerously expanded on the grounds that it was remedial. See id. Spitzer was able to gain national acclaim for acting as a sheriff on Wall Street, making the Martin Act’s power appealing to all successive NY AGs. See id.; Thompson, supra note 66 (detailing Spitzer’s victories and political legacy from merciless Martin Act investigations).

\textsuperscript{80}. See Olson, supra note 66 (contending no end in sight regarding self-interested politicians’ exploitation of Martin Act). In framing their actions under the guise of investor protection, the past three NY AGs have successfully advanced their own careers, agendas, and reputations at the expense of failing to create efficacious safeguards for the securities industry. See id. It is unsettling that Schneiderman proudly remarked at the Bloomberg Markets 50 Summit in 2013 that the law empowers him to do things that not even the federal government can do—a clear indication that he too intended to utilize the law’s extraordinary unilateral power. See 2013 Bloomberg Markets 50 Summit Remarks, supra note 11.

\textsuperscript{81}. See supra note 24 and accompany text (detailing history of Wall Street events and subsequent regulatory failures); see also Lewis, supra note 1, at 87-88 (explaining severity of HFT situation and how informed trader had power to change it). “The more [Brad Katsuyama] understood the inner workings of the financial system, the better he might inform the investors . . . who were being abused by that system. And the more pressure they might bring to bear on the system to change.” Lewis, supra note 1, at 88; see also Picardo, supra note 59 (outlining complexity of HFT and how insight of ex-traders may lead to predatory trading solutions). But see Allen, supra note 24, at 195-203 (offering alternative solution relating to precautionary
counterintuitive, because trader greed undoubtedly fueled the predatory trading schemes enabled by HFT, it also makes perfect sense.\textsuperscript{82} A free-market economy centers on the idea that our quality of life does not improve from arbitrary governmental decisions, but rather from voluntary choices of individuals; government intervention no longer seems justified in this situation because it has done little to defend and protect the individual.\textsuperscript{83} Thus, an independent exchange, created by an ethical group of ex-traders and designed to combat the problems caused by HFT, serves as an optimal solution.\textsuperscript{84} Scholar, Nassim Nicholas Taleb, stated, “A complex system, contrary to what people believe, does not require complicated systems and regulations and intricate policies. The simpler, the better.”\textsuperscript{85}

\textbf{C. The Bottom Line}

The revolutionary exchange, known as IEX, serves as an ideal response to the conflicts of interest afflicting the stock market; it preserves dark pools and

\textsuperscript{82} See Lewis, supra note 1, at 88 (emphasizing “moral inertia” problem in financial system, which perpetuated abuse and corruption). Although it was narrow self-interests that drove HFT abuse, former trader, Brad Katsuyama, understood the gravity of the situation: “I think there’s only a few people in the world who can do anything about this. If I don’t do anything there’s no one to call.” Id. Katsuyama and his decision to create IEX would have impressed Professor Milton Friedman; much before HFT’s domination of the U.S. equity market, Friedman stated that the free market structure, governed by the decisions of individuals, and not the government, responds to marketplace greed in a way far superior to other economic structures. See Interview with Milton Friedman, supra note 24. Conversely, while the piece arguably lacks some credibility, due to its acrimonious overtones, the ex-trader and HFT whistleblower vehemently disagrees that IEX serves as a long-term solution and instead proposes to reform market regulations, specifically Reg NMS. See Bodek, supra note 59.

\textsuperscript{83} See Enlow, supra note 15 (discussing facets of free enterprise system and where Friedman believed government intervention should end). Twentieth century economist and philosopher, F.A. Hayek, said, “[M]oney is certainly too dangerous an instrument to leave to the fortuitous expediency of politicians.” Hayek, supra note 15, at 120. More specifically, government intervention seems particularly unsuitable in this instance, as major HFT firms, like Getco, were getting increasingly close with federal regulators—more than 200 SEC staffers had taken jobs at HFT firms or firms that lobbied on their behalf since 2007. See Lewis, supra note 1, at 105-06. “[S]implicity has been difficult to implement . . . it is against the spirit of a certain brand of people who seek sophistication so they can justify their profession.” Taleb, supra note 24, at 11; see also Paul, supra note 23, at 2 (emphasizing money can work to maintain free society and limit political power).

\textsuperscript{84} See Lewis, supra note 1, at 242-43 (explaining alternative exchange created to reintegrate free market economy facets and simplify complicated market structure); Picardo, supra note 59 (describing IEX as potential solution for creating more balanced marketplace).

\textsuperscript{85} Taleb, supra 24, at 11; see also Allen, supra note 24, at 186-88 (reiterating important point relating to ineffectiveness of “overly-detailed regulation”). An inherent risk of complicated regulations is ineffectiveness, but it can also “destabilize the financial system by adding further complexity to an already complicated environment.” Allen, supra note 24, at 186-87.
HFT, but also creates fairness without federal intervention.\textsuperscript{86} Mutual and hedge funds, as opposed to major Wall Street players, funded the IEX solution, and these investors, in addition to IEX employees, have less than five percent stakes in the company.\textsuperscript{87} Furthermore, IEX limits order types, prohibits colocation, nixes rebates in favor of flat trade fees, and provides no advance previews of customer order data.\textsuperscript{88} Perhaps the most genius element of IEX, however, is the 350 microseconds of latency imposed, which effectively eliminates the opportunity for high-frequency traders to front-run other dark pool users.\textsuperscript{89} As IEX’s impressive share volume demonstrates, this new market solution was not only successful, but also well received by large institutions in the industry—something rarely said about government regulations.\textsuperscript{90}

\textsuperscript{86} See Lewis, supra note 1, at 173-74 (explaining intentions behind creating IEX). “[I]t wasn’t high-frequency trading in itself that was pernicious; it was its predations. It wasn’t necessary to eliminate high-frequency traders; all that was needed was to eliminate the unfair advantages they had, gained by speed and complexity.” Id. Contra IEX Swings Back, supra note 59 (acknowledging industry reactions, which argue IEX’s methods create “unfair advantage” and offset accuracy of NBBO). Many established exchanges, such as NYSE and NASDAQ, wrote comment letters following IEX’s application to become an exchange in September 2015, which primarily allege that IEX’s hallmark “speed bump” creates a disadvantage for orders ultimately not executed on the exchange. Id.; NYSE Attacks IEX, supra note 59 (opposing IEX exchange application given issues relating to lack of disclosure and proprietary router system). The most significant argument embedded within the polemical NYSE letter was that the IEX Point of Presence system violates Reg NMS because the intentional delay means orders are not executed or cancelled immediately and thus, since these actions are not automatic, IEX’s quotes are in violation of “the second prong of [Reg NMS’s] definition of an automated quote.” NYSE Attacks IEX, supra note 59; see generally King, supra note 59 (expressing dissatisfaction with IEX’s tactics and using Seinfeld reference to discredit business model).

\textsuperscript{87} See Lewis, supra note 1, at 178-79 (articulating purpose of investor agreement as one focused on diminishing conflicts of interest). This approach, which prohibited owners from trading directly on the exchange, aligned incentives closely with that of all stock market investors. See id.; Picardo, supra note 59 (reiterating intent behind IEX’s decision to be exclusively investor-owned).

\textsuperscript{88} See Lewis, supra note 1, at 178-79 (explaining IEX’s solution for creating fairness without banning HFT); Picardo, supra note 59 (outlining methods IEX used to combat predatory trading).

\textsuperscript{89} See Lewis, supra note 1, at 177-78 (describing reason for creating latency arbitrage and how they simulated effects of distance); Picardo, supra note 59 (defining latency and how it effectively prevents predatory trading).

\textsuperscript{90} See Lewis, supra note 31 (suggesting support from “silent majority” could monumentally impact IEX’s success); Krouse, supra note 59 (suggesting IEX has notable investor support since brokers make routing changes at request of clients); Picardo, supra note 59 (quantifying IEX’s success by comparing share volume on exchange to other thirteen exchanges); Repetto & Adams, supra note 59 (denoting significant increases in IEX trade volumes since its inception in October 2013). Not long after its launch, IEX handled over twenty million shares a day and surpassed four major exchanges, including NYSE MKT and the Chicago Stock Exchange. See Picardo, supra note 59. One of the first breakthroughs that propelled IEX forward was the early support it received from Goldman Sachs. See Lewis, supra note 1, at 241 (detailing how Goldman Sachs’s orders on IEX strengthened reputation and appeal). Additionally, big firms had even more incentive to trade on IEX because it promoted and utilized two areas that likely would be tarnished, or maybe even prohibited, if regulations were involved: HFT and dark pools. See id. at 179. “If high-frequency traders performed a valuable service in the financial markets, they should still do so, after their unfair advantages ha[ve] been eliminated.” Id.
The shift to electronic trading, as well as the many other developments that stemmed from that advance, monumentally changed the U.S. stock market; it is, however, ultimately still evolving.\textsuperscript{91} The lit market, while more regulated and publically accessible than the dark, became overwhelmingly less favorable to the traditional investor, who was harmed by the exchanges’ profit-centered decisions to cut deals with high-frequency traders.\textsuperscript{92} The dark pools initially served as a refuge from the greedy exchanges, which ruthlessly used regular investor trades as liquidity bait, but soon these too became tainted with avidity.\textsuperscript{93} Despite the negative attention dark pools and HFT have received, they still serve a meaningful purpose, as they have notably reduced costs and increased operational efficiencies.\textsuperscript{94} Therefore, instead of advocating for regulation that would eradicate or wholly diminish the value of these strategies, it is more important to improve on strategy structure to encourage a more meritorious outcome.\textsuperscript{95}

Although NY AG Eric Schneiderman’s case against Barclays put all major financial institutions on notice and alerted the general community to the situations involving dark pools, it is unlikely to have a considerable impact on the future of HFT or dark-pool trading.\textsuperscript{96} The decision to address this highly scrutinized and misunderstood topic through a Martin Act suit is so reminiscent of the Spitzer era and the subprime mortgage crisis that it undercuts the persistent overtones of righteous indignation.\textsuperscript{97} Furthermore, Congress and the SEC offer little hope for cogent reform.\textsuperscript{98} The agency is crippled by fear that any rule changes will spur inadvertent negative consequences.\textsuperscript{99} This fear is...
warranted, given the SEC’s track record, but failure to take any action is equally unhelpful.100 Moreover, because the agency’s knowledge of the trading landscape trails so far behind that of the sophisticated minds who are front-running the system, it only makes sense to turn to those people for solutions.101

IV. CONCLUSION

Brad Katsuyama and all of the ex-traders and programmers who created IEX, exemplify leaders in their field. They are guiding investors, brokers, and regulators toward an effective solution that targets specific aspects of this unique problem, all without federal or political intervention. Our society should encourage this style of management because it not only preserves our country’s economic foundation, but it also promotes guidance from morally responsible leaders—a matter acutely relevant to this industry.

The suit against Barclays will not address the overarching question of HFT legality, which further suggests it is no more than a rung on NY AG Schneiderman’s political career ladder. Although it is ultimately unclear how the market will continue to evolve, focusing on structure, simplicity, and clarity will be critical. Finally, it is vital to move forward knowing the system can always be improved. “Think left and think right and think low and think high. Oh, the thinks you can think up if you only try!”102

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regulations and their ultimate outcome).

100. See id. Just before the publication of this Note, on November 18, 2015, the SEC released a rule proposal, which would require ATSs to file a new form, ATS-N; this form would include information relating to the operational aspects of the ATS and be available for public viewing on the SEC’s Electronic Data Gathering, Analysis, and Retrieval website, commonly known as EDGAR. See Hayashi, supra note 48; Proskauer Memorandum, supra note 5 (discussing potential effects of new rule and assessing new disclosure responsibilities for ATSs). The increased disclosure would also be required to include any potential conflicts of interests between the broker-dealer-run venues and their clients, an issue at the heart of the Barclays case. See id.; Gubert, supra note 9 (recognizing regulatory effort to combat conflicts of interest as inherent purpose of proposed rule). Chairman Mary Jo White said the information currently available about order handling and the relationships between the venue and the client, as well as the relationship between the operating broker-dealer and its venue, is not enough for investors to “perform deeper or meaningful analyses or compare trading venues.” Tricchinelli, supra note 9.

101. See supra note 31 and accompanying text (explaining widespread industry confusion and how tenacious traders, like Katsuyama, uncovered HFT schemes).