



Lost in the Dark: An Analysis of the SEC's Regulatory Response to Dark Pools

Allison Hintz

Follow this and additional works at: <https://via.library.depaul.edu/bclj>

Recommended Citation

Allison Hintz, *Lost in the Dark: An Analysis of the SEC's Regulatory Response to Dark Pools*, 13 DePaul Bus. & Com. L.J. 329 (2015)

Available at: <https://via.library.depaul.edu/bclj/vol13/iss2/5>

This Comment is brought to you for free and open access by the College of Law at Via Sapientiae. It has been accepted for inclusion in DePaul Business and Commercial Law Journal by an authorized editor of Via Sapientiae. For more information, please contact digitalservices@depaul.edu.

. Lost in the Dark: An Analysis of the SEC's Regulatory Response to Dark Pools

*Allison Hintz**

I. INTRODUCTION

“Truth will ultimately prevail where there is pains to bring it to light.”
– George Washington

Computers have hijacked the global markets from human control. In the world of exchanges, dark pools are rising quickly, enveloping a world once run by humans. Dark pools are trumpeted as cloaking devices designed to hide from robotic algorithms programmed to ruthlessly hunt down and pick off trader intentions. As trading venues designed mainly for large institutional investors, dark pools are touted as exchange systems that minimize “information leakage”¹ and deter “predatory conduct,” such as front-running.²

Savvy traders unfairly exploit securities markets by employing opportunistic arbitrage strategies originating in high-frequency trading. Firms are able to use sophisticated computer algorithms to trade securities in milliseconds.³ That technology, combined with a paid-for special connection to a dark pool,⁴ allows high-frequency traders to use subscribers’ information to trade ahead.⁵ In other words, dark pool subscribers have become victims of the exact misconduct dark pools were designed to avoid.

For example, suppose an institutional investor seeks to buy 200,000 shares of IBM at a certain price range. That institutional investor prefers to hide its order inside a dark pool, instead of placing the order on a traditional exchange, such as the NASDAQ. A high-frequency

* Juris Doctor, Certificate in Business Law, DePaul University College of Law, anticipated May 2015; Bachelor of Arts, Economics & Legal Studies of Business, University of St. Thomas, June 2012. I would like to thank Professor Andrew Gold and Professor Cary Martin for their valuable feedback and guidance. Thank you to the BCLJ editorial staff for your zealous support throughout the writing process.

1. eBX, LLC, Exchange Act Release No. 67,969, 2012 WL 4580151, *2 (Oct. 3, 2012).

2. Pipeline Trading Systems LLC, Exchange Act Release No. 65,609, 2011 WL 5039038, *2 (Oct. 24, 2011).

3. MICHAEL LEWIS, FLASH BOYS 9-10 (2014).

4. See *infra* Part II.A.

5. LEWIS, *supra* note 3, at 9-10.

trader that has paid for a special connection to the dark pool chosen by the institutional investor is able to find that institutional investor's order, buy some or all of the 200,000 shares of IBM on the NASDAQ, and then quickly turn around and sell them to the institutional investor at a higher price. High-frequency traders are able to exploit orders sent to dark pools. Rightfully so, dark pools of liquidity are receiving an increased amount of attention from the media, financial industry and regulators.

This Comment argues that while dark pools may be necessary venues for large institutional trading, regulations geared toward preventing information leakage and predatory practices are seriously lacking. Unlike other publications, this Comment does not argue whether the Securities Exchange Commission ("SEC") or Financial Industry Regulatory Authority ("FINRA") should, as a general matter, heavily or lightly regulate dark pools.⁶ Instead, this Comment details the proposed regulations as they stand and analyzes those regulations in terms of their effectiveness in curbing predatory behavior. The analysis set forth within applies not only to the current proposed regulations, but may be used as guidelines for policymakers in future when making decisions pertaining to regulating dark pools.

This Comment is divided into five parts. Part I provides a brief understanding of dark pools, details two problems plaguing dark pools — information leakage and front-running — and provides an understanding of the proposed regulatory framework surrounding dark pools. Part II subsection (A) addresses the history and purpose of dark pools. It also provides explanatory definitions of key terms referenced throughout the Comment. Part II subsection (B) explains the most recent events that have placed dark pools in the regulatory hot seat. Part III of this Comment explains in detail the proposed regulations set forth by the Securities and Exchange Commission and the Financial Industry Regulatory Authority. Part IV examines the SEC's proposed regulations' effectiveness at curbing information leakage and predatory practices. I present my conclusion in Part V.

II. BACKGROUND

The Securities and Exchange Acts of 1933 and 1934 were drafted with the expectation that they would establish a market system based

6. See 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, 86-87 (2014).

on strict disclosure to investors.⁷ Perhaps unanticipated were the certain opaque places in the market where “stocks change hands in the dark.”⁸ Technological advances and rules allowing for expanded access to exchanges have given rise to high-frequency trading (“HFT”).⁹ HFT is a trading strategy using super-fast computers to trade at high speeds, potentially as fast as 13 milliseconds over 827 miles,¹⁰ and computer algorithms to trade orders and analyze data.¹¹ These computer algorithms are so sophisticated that they can scan the market and almost instantaneously locate pricing discrepancies to exploit.

HFT, in all its speed and sophistication, allows for open-market trades to be front-run. Front-running is the practice of trading on leaked information before the event on which the information is based has been realized, thus making the trade on which the information was based more expensive or less lucrative.¹² Investors looking to escape front-running sought out dark pools where their positions would be more secure. Settled in these alleged havens, investors are succumbing to the very practices they sought to escape.

A. *The Rise of Dark Liquidity*

Global equity markets have undergone significant changes over the past decade.¹³ In many jurisdictions, including the United States, market participants must consult multiple sources of liquidity for equity securities in order to obtain the best execution.¹⁴ Exchange and non-exchange trading venues, such as alternative trading systems

7. Robert Hatch, Essay, *Reforming the Murky Depths of Wall Street: Putting the Spotlight on the Security and Exchange Commission's Regulatory Proposal Concerning Dark Pools of Liquidity*, 78 GEO. WASH L. REV. 1032, 1032 (2010).

8. Scott Patterson, 'Dark Pools' Face Scrutiny: Regulators Ask for Details on Stock Trading in Murkiest Parts of the Market, WALL ST. J., (June 5, 2013), <http://online.wsj.com/news/articles/SB10001424127887324069104578527361102049152>.

9. See Adam Sussman et al., *US Equity High Frequency Trading: Strategies, Sizing and Market Structure*, TABB GROUP (Sept. 2, 2009), available at <http://www.tabbgroup.com/PublicationDetail.aspx?PublicationID=505>.

10. LEWIS, *supra* note 2, at 9-10 (discussing a new fiber-optic cable line between Chicago and New Jersey able to deliver orders round trip in just 13 milliseconds, which is faster than next fastest of 14.65 seconds of “The Gold Route”).

11. *High-Frequency Trading - HFT*, INVESTOPEDIA, <http://www.investopedia.com/terms/h/high-frequency-trading.asp> (last visited Apr. 7, 2014) (defining HFT as “[a] program trading platform that uses powerful computers [and complex algorithms] to transact a large number of orders at very fast speeds”).

12. *Front Running*, INVESTOPEDIA, <http://www.investopedia.com/terms/f/frontrunning.asp> (last visited Apr. 7, 2014).

13. Technical Committee of the International Organization of Securities Commissions, *Principles for Dark Liquidity*, OICU-IOSCO 4 (May 2011) [hereinafter *IOSCO Principles for Dark Liquidity*].

14. *Id.*

(“ATs”),¹⁵ are the types of sources these market participants must consult. By necessity, in order to attract and maintain order flow, trading venues must continually create new and innovative trading technology. The “expanded use of dark liquidity and the development of . . . dark pools” are such an innovation.¹⁶ Dark pools are designed with institutional investors, such as hedge funds or pension funds, in mind.

In the investment industry, a “pool” serves as a venue for buyers and sellers of equities, futures, stocks, etc. to come together to trade their positions; basically, any venue in which trading takes place is known as a pool. Traditionally, broker-dealers¹⁷ specialized in retrieving information regarding their client’s trading needs and subsequently matching those needs with another client with opposite intentions.¹⁸ For example, a broker-dealer with a client looking to buy Google stock would seek out a seller of Google stock. Negotiations on stock exchange trading floors or telephone conversations seeking to identify trading needs required participants to reveal their identities; trading was much more transparent and human.¹⁹ Now, electronic trading platforms permit users to maintain anonymity in their search for trading interests.²⁰

“Liquidity” signifies the ease at which a buyer or seller of a security is able to find a counterpart for their suggested transaction and execute said transaction without affecting the asset’s price; the easier a buyer of a security can find a seller of a security, or the other way

15. Rule 300(a) of the Securities and Exchange Commission Regulations defines an ATS as [a]ny organization, association, person, group of persons or system (1) that constitutes, maintains, or provides a market place or facilities for bringing together purchasers and sellers of securities or for otherwise performing with respect to securities the functions commonly performed by a stock exchange within the meaning of Rule 3b-16; and (2) [t]hat does not (i) set rules governing the conduct of subscribers other than the conduct of such subscribers’ trading on such organization, association, person, group of persons, or system; or (ii) discipline subscribers other than by exclusion from trading.

SEC Requirements for Security Futures, 17 C.F.R. § 242.300 (2009).

16. IOSCO *Principles for Dark Liquidity*, *supra* note 13, at 4.

17. A broker-dealer may be defined as “[a] person or firm in the business of buying and selling securities, operating as both a broker and a dealer, depending on the transaction.” *Broker-dealer*, INVESTOPEDIA, <http://www.investopedia.com/terms/b/broker-dealer.asp> (last visited Jan. 20, 2013). Typically a broker-dealer describes stock brokerages “because most of them act as both agents and principals. A brokerage acts as a broker (or agent) when it executes orders on behalf of clients, whereas it acts as a dealer (or principal) when it trades for its own account.” *Id.*

18. Stavros Gadinis, *Market Structure for Institutional Investors: Comparing the U.S. and E.U. Regimes*, 3 VA. L. & BUS. REV. 311, 320-21 (2008).

19. *Id.* at 321.

20. *Id.*

around, the more liquid a security.²¹ Liquidity is considered ‘dark’ when quotation data, such as price and volume information, of a potential trade is not publicly displayed.²² In other words, dark pools are private exchanges or trading platforms. Non-disclosure is limited to the pre-trade state.²³ Dark pools report trade executions in the consolidated trade data;²⁴ however, the trade reports are not required to identify the particular ATS that executed the trade.²⁵ In short, “undisclosed trading interests that increase the market’s available trading opportunities, and therefore its liquidity, are not transparent to anyone outside the counterparties until the trade is completed.”²⁶ Thus, such trading interests are called “dark.”²⁷

Although the use of ‘dark pool’ terminology is new, as perhaps evidenced by the SEC’s failure to define the term in the Securities and Exchange Act of 1934 (“Exchange Act”) or in subsequent Commission rules, dark liquidity is not new.²⁸ Market participants interested in moving large trades have historically sought to complete their trades without fully disclosing the extent of their trading interest to the broader market.²⁹ Such covertness occurs for good reasons: traders who notice an increased demand of a certain security may view that demand as indication of a desirable security and purchase the security for their personal portfolio, which would ultimately increase the transaction costs for the large investor. Similarly, opportunistic traders who notice an increase in demand of a certain security may attempt to front-run on that demand by purchasing the security ahead of the large investor and later sell the security to the large investor for a profit.³⁰ In either scenario, large institutional investors would do

21. BLACK’S LAW DICTIONARY 460 (4th Pocket Ed. 2011).

22. *Regulation of Non-Public Trading Interest*, 74 Fed. Reg. 61,208, 61,209 (Nov. 13, 2009) (to be codified at 17 C.F.R. pt. 242) [hereinafter SEC Dark Pools Proposal].

23. Alexandra Zendrian, *Don’t Be Afraid of the Dark Pools*, FORBES (May 18, 2009, 4:00 PM), <http://www.forbes.com/2009/05/18/dark-pools-trading-intelligent-investing-exchanges.html>. A ‘dark order’ “refers to an electronic order that can . . . automatically execute[] and for which there is no pre-trade transparency.” IOSCO *Principles for Dark Liquidity*, *supra* note 13, at 4-5.

24. “Consolidated market data is the primary vehicle for public price transparency in the U.S. equity markets.” SEC Dark Pools Proposal, *supra* note 22, at 61,208. Included in the market data are both pre-trade transparency – real-time information on the best-priced quotations for future executions (“consolidated quotation data”), and post-trade transparency – real-time reports of trades as they are executed (“consolidated trade data”). *Id.* at 61,208.

25. *Id.* at 61,209.

26. Gadinis, *supra* note 18, at 320.

27. *Id.*

28. SEC Dark Pools Proposal, *supra* note 22, at 61,208.

29. *Id.*

30. *Id.* at 61,209.

When information about a large order . . . ‘leaks out,’ an opportunistic firm can trade in front of that order to the detriment of the firm that placed it. For example, . . . an

well to employ techniques to avoid full disclosure of the extent of their interest in order to limit increased costs – transaction or otherwise.³¹

Institutional investors traditionally dealt with issues of front-running by not revealing the full extent of their trade until the last possible moment.³² Block trading allowed market participants to keep their trade secret until after it was complete; details of the order would publish only after the order was placed. Regulation National Market System (“Regulation NMS”) made this strategy exponentially more difficult to utilize: Regulation NMS requires national exchanges to collect, merge and publish their venue’s posted securities quotations.³³ Furthermore, Section 242.611 of Regulation NMS mandates that broker-dealers acting on behalf of investors only execute trades at the best available prices.³⁴ The new regulations decreased the number of block orders dramatically.³⁵ The SEC recognized the need for large investors to be able to shed or purchase large orders. Rule 604 of Regulation NMS, which details limit order display requirements, houses exception 604(b)(4), which provides that a block size order is exempt from public display requirements unless the customer placing the order requests the order to be displayed.³⁶

institutional investor seeking to buy (or sell) a large amount of stock [may encounter] an opportunistic firm . . . immediately buy[ing] shares at the lowest prevailing offers (or sell[ing] shares at the highest prevailing bids). . . . [T]he lowest offers (or highest bids) [will then be] removed from the market, [resulting in] the best offers becom[ing] higher (or the best bids becoming lower). The market price thus moved up (or down) in response to increased demand (or supply). [With a] bid price up (or down), the opportunistic firm can then make money by selling its shares at the new higher price (or buying shares at the new lower price), knowing that the demand (or supply) from the institutional investor’s order will continue to keep the price high (or low).

Pipeline Trading Systems LLC, Exchange Act Release No. 65,609, 2011 WL 5039038, *3 (Oct. 24, 2011).

31. SEC Dark Pools Proposal, *supra* note 22, at 61,209. Institutional investors, such as investment banks or retirement funds, are commonly used as an example of affluent market participants seeking to trade at large volumes. *Id.* at 61,208.

32. *Id.* at 61,208 (discussing how large institutional investors have sought ways to minimize transaction costs by completing their trades without disclosing the full extent of their trading interest to the broader market).

33. *See* Dissemination of Quotations in NMS Securities, 17 C.F.R. § 242.602 (2005); Hatch, *supra* note 7, at 1035 (noting that Regulation NMS makes it difficult for investors to keep their trading interests a secret).

34. *See* 17 C.F.R. § 242.611. Section 242.611 describes the ‘Order Protection Rule’.

35. Hatch, *supra* note 7, at 1035-36. One estimate placed block trades of 10,000 or more shares as accounting for over 60% of trade volume of the New York Stock Exchange in April 2001. *Id.* Five years later, the share dropped to only 18%. *Id.* at 1036.

36. SEC Dark Pools Proposal, *supra* note 22, at 61,209. “Rule 600(b)(9) of Regulation NMS defines ‘block size’ to mean an order of at least 10,000 shares; or for a quantity of stock having a market value of at least \$200,000.” *Id.* at 61,209 n.5.

Despite the Commission's efforts at curtailing dark strategies, Regulation NMS and the Exchange Act provide certain disclosure loopholes: trades could happen in venues where price disclosure was not mandated.³⁷ These venues are classified as "Alternative Trading Systems" ("ATs"), which are governed by Section 5 of the Exchange Act and Regulation.³⁸ Public quotes are not required on unregistered exchanges, such as dark pools.³⁹ Though the Commission has sought to promote public display of trading interest by providing various incentives for disclosure, the Commission has never sought to prohibit the option of dark liquidity services.⁴⁰

Dark pools are supposed to be the perfect cloaking solution for those traders who do not wish to tip their hand.⁴¹ Though dark liquidity has long been used as a tool for anonymity and minimal-impact order execution, dark pools bring a widespread availability of those benefits to the financial industry.⁴² Dark pool operators are able to take bulk orders and divide them up using computer algorithms.⁴³ The ease of algorithmic software decreased fixed costs for operators, which resulted in the ability to decrease variable costs, such as per-share charges, for clients.⁴⁴

The benefits of dark pools as murky swamps were recognized with an increase of trader usage, relative to other exchanges.⁴⁵ The share of trading volume for dark pools has increased; in the second quarter of 2009, dark pools accounted for over 7% of the United States' trading volume in listed stocks.⁴⁶ Over the next five years, the share of trading volume surged in practice by large institutional investors to approximately 12 to 15%.⁴⁷ By way of comparison, no single regis-

37. Hatch, *supra* note 7, at 1036 (citing Securities Exchange Act of 1934, 15 U.S.C. §§ 78a-78mm); see 17 C.F.R. § 242.601(a) (only national securities are required to "file a transaction reporting plan regarding transactions in listed equity and NASDAQ securities . . .").

38. Hatch, *supra* note 7, at 1036; see 15 U.S.C. § 78e.

39. See 15 U.S.C. § 78e.

40. SEC Dark Pools Proposal, *supra* note 22, at 61,209.

41. Pipeline Trading Systems LLC, Exchange Act Release No. 65,609, 2011 WL 5039038, *7 (Oct. 24, 2011); see also Eric R. Sirri, Director, Div. of Trading and Mkts., Keynote Speech at the SIFMA 2008 Dark Pools Symposium (Feb. 1, 2008), available at <http://www.sec.gov/news/speech/2008/spch020108ers.htm>.

42. IOSCO *Principles for Dark Liquidity*, *supra* note 13, at 4.

43. Hatch, *supra* note 7, at 1037.

44. See *id.*

45. Brent Radcliffe, *Should You Be Afraid of Dark Pool Liquidity?*, INVESTOPEDIA, <http://www.investopedia.com/articles/trading/09/dark-pool-liquidity.asp> (last visited February 16, 2015).

46. Haoxiang Zhu, *Do Dark Pools Harm Price Discovery?*, 27 REV. FIN. STUDS. 747, 748 (2014).

47. Marcus Baram, *Michael Lewis' "Flash Boys" Exposes Shady World of Dark Pools' Some Funds Have Already Pulled Out*, INT'L BUS. TIMES (Mar. 30, 2014, 5:35 PM), <http://>

tered securities exchange executed more than 23% of the share of trading volume as of April 2013.⁴⁸ Dark pools' collective increase in their share of trading is likely attributed to both regulatory loopholes and the relatively lower costs of business for traders and clients.⁴⁹

Despite the advantages described above, dark pools are not without criticism. Likely a victim of its own success, dark trading has taken precedence for U.S. regulators after limited oversight in the past.⁵⁰

B. Government Oversight

Government oversight of dark pool liquidity has been scarce since the inception of dark pools.⁵¹ Beginning in 2007, the financial industry voiced concerns about dark pools.⁵² However, in November 2009, the SEC released new rule proposals to regulate dark pools, as well as other alternative stock trading venues that compete with national exchanges.⁵³ FINRA, the private-sector overseer of U.S. brokerages, proposed rules regarding filing for dark pools in September 2013.⁵⁴

Since proposing new regulatory provisions, the SEC has not been entirely idle on the issue of dark pools. In 2011, the SEC fined the dark pool firm Pipeline Trading Systems \$1 million to resolve claims that Pipeline failed to disclose to customers that the majority of orders sent to the firm's dark pool were filled by a wholly-owned trading

www.ibtimes.com/michael-lewis-flash-boys-exposes-shady-world-dark-pools-some-funds-have-already-pulled-out-1564881.

48. Scott Patterson, *'Dark Pools' Face Scrutiny: Regulators Ask for Details on Stock Trading in Murkiest Parts of the Market*, WALL ST. J. (June 5, 2013 9:55 PM), <http://online.wsj.com/news/articles/SB10001424127887324069104578527361102049152>. The New York Stock Exchange (NYSE), which holds the largest market share of any individual registered securities exchange, accounted for approximately 23% of trading volume. *Id.*

49. Hatch, *supra* note 7, 1037.

50. Tim Cave, *The Year Dark Trading Surged (and Regulators Hit Back)*, FIN. NEWS (Dec. 27, 2013), <http://www.efinancialnews.com/story/2013-12-27/the-year-dark-trading-surged-and-regulators-hit-back?ea9c8a2de0ee111045601ab04d673622>; Aubrey Gallo, *Developments in Banking and Financial Law: The Shadow Financial System*, 29 REV. BANKING & FIN. L. 88, 92 (2009).

51. Gallo, *supra* note 50, at 92; *see also* Mary L. Shapiro, Chairman, SEC, *Strengthening Our Equity Market Structure* (Sept. 7, 2010), *available at* <http://www.sec.gov/news/speech/2010/spch090710mls.htm> (explaining that nearly all orders are executed by fully automated systems). "Sophisticated trading firms can process market information, generate buy or sell orders, and send them to an exchange in less time than it takes to blink your eye. And speed is not all that has changed." *Id.* Volume outside the NYSE split among public exchanges, dark pools, and internalizing broker-dealers. *Id.*

52. Hatch, *supra* note 7, at 1039.

53. SEC Dark Pools Proposal, *supra* note 22, at 61,208.

54. Financial Industry Regulatory Authority, *Proposed Rule Change (Form 19b-4)*, 1 (Sept. 30, 2013), *available at* <http://www.finra.org/web/groups/industry/@ip/@reg/@rulfil/documents/rulefilings/p354143.pdf> [hereinafter FINRA Dark Pools Proposal].

affiliate.⁵⁵ The following year, the SEC fined broker-dealer eBX \$800,000 in order to settle allegations that it allowed third-party operator of its trading platform, Level ATS, to use details on client orders to its advantage.⁵⁶ The two administrative proceedings, *In re Pipeline Trading Systems, LLC* and *In re eBX, LLC*, emphasize what this Comment argues are the two largest dark pool weaknesses demanding attention by regulatory authorities: information leakage and front-running.

1. In the Matter of Pipeline Trading Systems, LLC

In 2011, the SEC brought its first ever action against a dark pool trading platform in the administrative proceeding *In the Matter of Pipeline Trading Systems LLC*.⁵⁷ The action named as Respondents Pipeline Trading Systems LLC, Fred Federspiel and Alfred Berkley.⁵⁸ Pipeline is a registered broker-dealer and a registered ATS.⁵⁹ Federspiel was named party to the proceeding as the founder and Chief Executive Officer (“CEO”) of Pipeline.⁶⁰ Berkley was similarly named as the Chairman of Pipeline.⁶¹

The Commission alleged, among other things, that Pipeline Trading failed to “disclose to its customers that the overwhelming majority of the shares traded on its ATS were bought or sold by a wholly owned subsidiary of Pipeline.”⁶² The Pipeline affiliate (“Affiliate”) was created to provide liquidity to Pipeline’s customers.⁶³ The Commission found that Pipeline made false and misleading statements regarding clients’ pre-trade information, such as the order’s price reasonableness and minimum size.⁶⁴ When a customer placed an order, the Block Board, Pipeline’s proprietary graphical interface, would display a “stock symbol in a small orange-colored box on all the other customers’ computers.”⁶⁵ The “orange light” failed to note the other’s side,

55. Pipeline Trading Systems LLC, Exchange Act Release No. 65,609, 2011 WL 5039038, *1, *16 (Oct. 24, 2011).

56. eBX, LLC, Exchange Act Release No. 67,969, 2012 WL 4580151, *2, *10 (Oct. 3, 2012).

57. See *Pipeline Trading Systems LLC*, 2011 WL 5039038, at *3.

58. *Id.* at *3.

59. Thomas Gorman, *The SEC’s First Action Involving a Dark Pool*, LexisNEXIS LEGAL NEWSROOM (Oct. 26, 2011), available at <http://www.lexisnexis.com/legalnewsroom/securities/b/securities/archive/2011/10/26/the-sec-s-first-action-involving-a-dark-pool.aspx>.

60. *Id.*

61. *Id.*

62. *Pipeline Trading Systems LLC*, 2011 WL 5039038, at *2. Affiliate is subject to Regulation ATS.

63. *Id.* at *2.

64. *Id.* at *4.

65. *Id.*

price, or size.⁶⁶ The light would only appear for an order whose price was reasonable and was sized at least as large as the applicable Large Block Quantity, or the minimum order size for each stock.⁶⁷

“Pipeline provided Affiliate a type of electronic connection to the ATS, one otherwise provided only to customers who were institutional investors.”⁶⁸ When a customer’s order triggered the orange light, Pipeline customers without that special connection could know only from human observation of their computer’s graphical interface.⁶⁹ The Affiliate received trade information in a more easily processed form through a FIX line.⁷⁰ Affiliates collection and analysis of these FIX messages allowed it to create a database that tracked the precise times during which each stock was orange and white, as well as certain price information.⁷¹ *Ergo*, Affiliate had an efficient and accurate means to edge out customers not privy to such information by “assess[ing] the persistence, side, and approximate limit price of customer orders.”⁷²

Pipeline began operations as an alternative trading system.⁷³ It created its dark pool in September 2004 in response to ever-increasing consumer demand for a trading venue that could handle large block orders without falling to the perils of front-running.⁷⁴ The dark pool was marketed largely to buy-side institutional investors seeking liquidity.⁷⁵ Affiliate was created to generate enough liquidity to attract cus-

66. *Id.*

67. *Pipeline Trading Systems LLC*, 2011 WL 5039038, at *4.

68. *Id.*

69. *Id.* at *7.

70. *Id.* at *6 (“FIX is a protocol for transmitting order information in the financial industry.”)

71. *See id.*

72. *Pipeline Trading Systems LLC*, 2011 WL 5039038, at *6.

73. Gorman, *supra* note 59.

74. *Pipeline Trading Systems LLC*, 2011 WL 5039038, at *4. According to Pipeline’s 2003 internal business plan, “Institutions have always had a problem trading large blocks of shares. Whenever information about a large institutional order leaks out to the market, several market intermediaries step in front of such an order. This often results in an adverse movement in the market price for large trades.” *Id.* at *3 (internal quotation marks omitted). Alfred R. Berkeley III, Pipeline’s chairman, stated that “Pipeline minimizes market impact by keeping . . . the details of the trader’s intentions secret” and “is optimized to meet the block trader’s need to operate invisibly in the market . . . free from backing away and front running.” *Id.* at *7. Pipeline did not use the term “front running” to mean the illegal practice of a broker-dealer misusing customer trade information to trade stock in its own account, to the detriment of the customer. Instead, Pipeline targeted institutional investors, who are often wary of “predators” who will “sniff out” large institutional orders through small orders. *Id.* at *4. The risk of a small amount of capital can result in a huge payoff of “information that can be used to trade in piecemeal fashion *in front of* the institutional order for the predator’s own profit and to the detriment of the institutional investor. *Id.* (emphasis added).

75. *Pipeline Trading Systems LLC*, 2011 WL 5039038, at *5.

tomers to Pipeline's ATS.⁷⁶ Pipeline represented itself to be a "natural" crossing network, meaning that Pipeline did not generate trades on its ATS platform for the purpose of executing its subscriber's orders.⁷⁷ However, Affiliate was in fact created to "[k]eep the Block Board active" by placing frequent orders and trading with Pipeline Customers.⁷⁸ From 2004 to 2009, Affiliate participated in approximately eighty percent of the trades executed in Pipeline's dark pool and was largely responsible for increased volume on the ATS.⁷⁹

Pipeline and Affiliate engaged in numerous tactics to achieve maximum liquidity. Pipeline provided Affiliate with a "type of electronic connection" to the dark pool—a type of connection normally exclusive to customers who were institutional investors.⁸⁰ This exclusive connection had the effect of pre-positioning Affiliate in front of Pipeline's customer orders.⁸¹ In practice, when a customer order was placed on the ATS to purchase shares and the order turned the stock symbol orange on the Block Board, Affiliate would buy shares of the same stock in other market centers, turn around and attempt to fulfill the customer's order with the recently acquired shares.⁸² Conversely, when a customer order sought to sell shares, Affiliate would short-sell shares of the same stock in other market centers and buy the customer's shares to fulfill the short sale.⁸³ While Affiliate received order information in a more easily processed form over a FIX line, Pipeline customers without the connection could only know such information from human observation.⁸⁴ Consequently, it became nearly impossible for a customer to use the information to their trading advantage.⁸⁵ Over time, Pipeline used its data (times during which each stock was orange and white and price information) to create a database to efficiently and accurately "assess the persistence, side, and approximate limit price of customer orders."⁸⁶

76. *Id.* at *4. Pipeline issued a press released on June 5, 2007 with the headline "Block Traders Flock to Pipeline for Large Natural Liquidity / The Block Market Sustains Record Growth." *Id.* at *9.

77. *Id.* at *6-7. Alfred R. Berkeley III, Pipeline's chairman, stated that Pipeline "acts as a confidential channel, specifically to bring natural buyers and sellers together . . . without disseminating their intentions." *Id.* at *7.

78. *Pipeline Trading Systems LLC*, 2011 WL 5039038, at *4.

79. *Id.* at *6, *8.

80. *Id.* at *6.

81. *Id.* at *5.

82. *Id.*

83. *Pipeline Trading Systems LLC*, 2011 WL 5039038, at *5.

84. *Id.* at *6.

85. *Id.*

86. *Id.*

Pipeline and Affiliate employed another tactic aimed at ensuring their advantage: “flashing.”⁸⁷ “Flashing,” in industry jargon, is the “practice of placing large numbers of orders only to cancel them immediately afterwards” for the purpose of gleaning the interest of contra-side orders.⁸⁸ Affiliate used flashing for, “among other reasons, . . . assess[ing] the interest of Pipeline’s customers.”⁸⁹

Pipeline’s “inaccurate and misleading marketing and disclosure materials”⁹⁰ complemented its improper use of subscriber’s trading information by “some of the smartest guys in the country.”⁹¹ Repeated disclosures to regulators and subscribers did little or nothing to support Pipeline’s promotion as “a refuge from predators and front-runners.”⁹² Pipeline promoted itself as “leak-proof” and “predator-proof” while simultaneously using its own funds and insidious data collection methods to engage in predatory practices, such as front-running, that predators in lit markets use.⁹³ Pipeline’s use of Affiliate as an “asset” and a “high-frequency firm that sought to predict the side and price of Pipeline customers’ orders” ultimately gave Affiliate the ability to do the very things it marketed Pipeline’s dark ATS as a safe harbor from.⁹⁴

Conflicts of interest emerged; Pipeline’s senior management recognized “a direct conflict of interest between Affiliate and a customer[’s] order it was [attempting] to fill.”⁹⁵ The Commission found an inverse relationship between Affiliate and a customer. “In any given trade, the better the price the customer received, the worse the price the Affiliate received, and vice-versa.”⁹⁶ Pipeline’s Head Trader implemented an incentive system in an attempt to address the conflicts of interest.⁹⁷ The system utilized a three-prong approach in which traders would receive compensation based on the sum of three quantities: (1) the employee’s profits and losses from trading; (2) “a quantity known as the Execution Quality Rebate” (“EQR”); and

87. *Id.*

88. *Pipeline Trading Systems LLC*, 2011 WL 5039038, at *2.

89. *Id.* at *6.

90. Kiersten Zaza, *A Fiduciary Standard as a Tool for Dark Pool Subscribers*, 18 STAN. J.L. BUS. & FIN. 319, 340 (2013).

91. *Pipeline Trading Systems LLC*, 2011 WL 5039038, at *9.

92. *Id.* at *7.

93. *Id.*

94. *Id.* at *9.

95. *Id.* at *10.

96. *Pipeline Trading Systems LLC*, 2011 WL 5039038, at *10.

97. *Id.*

(3) \$0.007 per share executed by the trader on the ATS.⁹⁸ As a result of the compensation structure, Affiliate's trading became less profitable.⁹⁹

Pipeline occasionally disciplined customers by limiting or terminating their access to Pipeline's dark ATS.¹⁰⁰ Pipeline would do this for various reasons, such as when a customer was found to be "taking advantage of other customers."¹⁰¹ Pipeline followed no fixed guidelines for making disciplinary decisions, but appeared to make such decisions on a facts and circumstances basis.¹⁰² Ironically, Affiliate was never disciplined with limited or terminated access to the ATS.¹⁰³

The dark ATS Pipeline agreed to pay \$1 million in civil penalties to settle the action with the Commission.¹⁰⁴ Additionally, Pipeline agree to "cease and desist" from violating Section 17(a)(2) and Regulation ATS in response to the SEC's order.¹⁰⁵ The SEC's order found that Pipeline violated: Section 17(a)(2) of the Securities Act of 1933, Rule 301(b)(2) of Regulation ATS under the Securities Exchange Act of 1934, and Rule 301(b)(10) of Regulation ATS.¹⁰⁶ Section 17(a)(2) prohibits, "in the offer or sale of any securities . . . obtain[ing] money . . . by means of any untrue statement of a material fact or any omission to state a material fact necessary to make the statements made, in light of the circumstances under which they were made, not misleading."¹⁰⁷ In other words, Section 17(a)(2) prohibits the use of false or misleading statements in the sale of securities.¹⁰⁸ Rule 301(b)(2) and

98. *Id.* Prong one was implemented to incentivize traders to generate profits and avoid losses for Pipeline. *Id.* Prong two allegedly provided incentives for traders "to provide executions to Pipeline's customers at prices that were not unfavorable to the customers." *Id.*

EQR was calculated by subtracting, for each trade on the ATS, (a) the price at which the Affiliate actually filled a customer's order from (b) the stock's average price on the market, weighted by volume (known as the volume-weighted average price, or VWAP) in the 10 minutes immediately before and after when the trade took place on the ATS.

This so-called 20-minute VWAP was intended to serve as a measure of good execution quality for Pipeline's customers.

Pipeline Trading Systems LLC, 2011 WL 5039038, at *11. Prong three was designed to incentivize traders "to execute a high volume of trades opposite customers on the ATS." *Id.* at *10.

99. *Id.* at *11. Affiliate lost approximately \$19.7 million on its trading for years 2004 to 2006. *Id.* Affiliate had almost no net trading losses in 2007. *Id.* In 2008, 2009, and 2010, Affiliate's trading profits were \$18.4 million, \$9.3 million, and \$4.5 million, respectively. *Id.* The Head Trader was implemented in 2006. *Pipeline Trading Systems LLC*, 2011 WL 5039038, at *10.

100. *Id.*

101. *Id.* at *12.

102. *Id.*

103. *Id.*

104. *Pipeline Trading Systems LLC*, 2011 WL 5039038, at *16.

105. *Id.*

106. *Id.*

107. 15 U.S.C. § 77q(a)(2).

108. *See id.*

(b)(10) require an ATS operator to disclose certain information in required filings with the SEC as well as implement safeguards and procedures for protecting ATS users' confidential trading information.¹⁰⁹ Interestingly, Pipeline's CEO and chairman were charged with personal liability under the aforementioned rules and regulations for causing Pipeline to commit its violations.¹¹⁰ Personal liability, then, could potentially be seen as a punitive tool in future ATS litigation.

2. In the Matter of eBX, LLC

Subsequent to the *Pipeline* litigation, the SEC filed an action against eBX, LLC ("eBX") in administrative proceeding *In the Matter of eBX, LLC*.¹¹¹ Named as respondent, eBX is a registered broker dealer and operator of LevelL ATS, an alternative trading system.¹¹² LevelL was marketed as a dark pool.¹¹³

The eBX proceeding illustrates how routers, third-party vendors and dark pool aggregation can result in a breach of information confidentiality.¹¹⁴ The SEC alleged that eBX, through LevelL, violated Regulation ATS by allowing a "smart order router" to remember subscriber information of unexecuted orders lingering in LevelL.¹¹⁵ LevelL's operation was outsourced to a third-party technology service provider, Lava Trading.¹¹⁶ Lava Trading signed a contract "to operate, host and maintain LevelL."¹¹⁷ Lava Trading also had an order routing business, distinct from LevelL, through which it sold order routing services to its own customers.¹¹⁸ Some of Lava Trading's customers were also LevelL subscribers.¹¹⁹

Lava Trading instructed subscribers to send their orders into LevelL through the Router, which was used as the FIX gateway.¹²⁰ LevelL had two principal order types: (1) resting orders and (2) immediate-or-cancel ("IOC") orders.¹²¹ Resting orders are limit orders to buy at a price below or sell at a price above the prevailing market price that

109. 17 C.F.R. §§ 242.301(b)(2), 242.301(b)(10).

110. Pipeline Trading Systems LLC, Exchange Act Release No. 65,609, 2011 WL 5039038, *16 (Oct. 24, 2011).

111. eBX, LLC, Exchange Act Release No. 67,969, 2012 WL 4580151, *1 (Oct. 3, 2012).

112. *Id.* at *2.

113. *Id.*

114. Zaza, *supra* note 90, at 331.

115. *eBX, LLC*, 2012 WL 4580151, at *2.

116. *Id.* Citigroup owns Lava Trading and is a part owner of eBX and, thus, LevelL.

117. *Id.* at *3.

118. *Id.* at *1.

119. *Id.* at *4.

120. *eBX, LLC*, 2012 WL 4580151, at *3.

121. *Id.*

remain in the system for a subscriber-stipulated period of time.¹²² IOC orders are orders that must be cancelled (in full or in part), by stipulation of the subscriber, if the order cannot immediately be filled in full or in part.¹²³ Level subscribers were required to send their orders, of either type, though Lava Trading to get into Level.¹²⁴

The Router offered an optional Memory Feature, which “enabled it to retain a record of any order that [it] had submitted to various market centers”¹²⁵ Information retained by the Memory Feature included “the symbol, side, source, quantity, and received time” for the orders.¹²⁶ The Memory Feature would also retain price and order attribute information for certain orders.¹²⁷ The Memory Feature could use that information to execute “automated routing decisions.”¹²⁸

Regulation ATS requires an ATS to “establish adequate safeguards and procedures to protect subscribers’ confidential trading information.”¹²⁹ Level, from at least 2008 through early 2011, failed to protect confidential trading information and failed to disclose to all subscribers the uses allowed to a third party, outside of ATS, to make of that confidential subscriber information.¹³⁰ Particularly relevant was Level’s allowance of Lava Trading’s order routing business (“Order Routing Business” or “Router”) to save Level subscribers’ unexecuted order information, which it used for its own benefit.¹³¹ Level failed to disclose to subscribers this third-party use.¹³² The Order Routing Business used Level subscribers’ information to front-run on subscribers’ orders, similar to Affiliate’s use of subscriber information in *Pipeline*.¹³³ The Router also stored and kept aware of prices and

122. See *Limit order*, INVESTOPEDIA, <http://www.investopedia.com/terms/l/limitorder.asp> (last visited Apr. 7, 2014).

123. See *Immediate Or Cancel Order - IOC*, INVESTOPEDIA, <http://www.investopedia.com/terms/i/immediatecancel.asp> (last visited Apr. 7, 2014).

124. *eBX, LLC*, 2012 WL 4580151, at *3.

125. *Id.* at *4.

126. *Id.*

127. *Id.*

128. *Id.*

129. 17 C.F.R. § 242.301(b)(10); *eBX, LLC*, 2012 WL 4580151, at *7.

130. *eBX, LLC*, 2012 WL 4580151, at *8.

131. *Id.* at *7.

132. *Id.* at *1.

133. *Id.* at *2; see *supra* Part II.B.1. For example,

if the Router knew that a buy order had been routed to Level, the Service Provider would use that information to route a sell order to Level to obtain an execution.

Conversely, if the Service Provider knew that no buy order had been routed to Level, it would likely route any sell order it subsequently received to another destination.

eBX, LLC, 2012 WL 4580151, at *2.

pricing characteristics of Level's resting orders, which it used to determine whether to send an order to Level, as opposed to a different venue.¹³⁴ Router used the order attribute information in an "attempt to maximize its [own] customers' executions."¹³⁵ eBX agreed, in a settlement with the SEC, to pay \$800,000 in civil penalties.¹³⁶

III. REGULATIONS

On, October 21, 2009, the SEC voted unanimously to propose regulatory measures on dark pools.¹³⁷ The Commission's proposed rules are "intended to increase transparency of dark pools so investors get a clearer view of stock prices and liquidity."¹³⁸ The SEC is not alone in its endeavor to regulate dark pools. Nearly three years later, on September 30, 2013, FINRA filed a rule proposal with the SEC that would impose reporting requirements on ATs, including dark pools.¹³⁹ The rules are designed to provide increased access to publicly available information surrounding trades executed in dark pools.¹⁴⁰

A. *United States Securities & Exchange Commission's Proposed Regulations*

The SEC and financial industry have recently taken notice of dark pools and the perceived lack of regulation. In 2009, the SEC voted unanimously to propose regulatory measures aimed at increasing transparency of dark pools, to the benefit of investors in terms of prices and liquidity disclosure.¹⁴¹ The SEC issued three proposals: (1) treat actionable Indications of Interest ("IOIs") similarly to other quotes and subject to the same disclosure rules;¹⁴² (2) lower the trad-

134. *Id.* at *6.

135. *Id.* at *3.

136. *Id.* at *9.

137. See *Issues Proposals to Shed Greater Light on Dark Pools*, SEC (Oct. 21, 2009), available at <https://www.sec.gov/news/press/2009/2009-223.htm>. As of publication, the SEC's proposed rules have not been approved. This comment is an analysis of those proposed rules and may be used as an analytical guideline for any future proposals to regulate dark pools.

138. *Id.*

139. FINRA Dark Pools Proposal, *supra* note 54, at 1.

140. SEC Dark Pools Proposal, *supra* note 22, at 61,208.

141. FINRA Dark Pools Proposal, *supra* note 54, at 4.

142. SEC Dark Pools Proposal, *supra* note 22, at 61,233.

Rule 602 of Regulation NMS specifies the public quoting requirements of national securities exchanges, national securities association . . . , exchange members, and OTC market makers. In general, Rule 602 requires exchange members and certain OTC market makers to provide their best-priced bids and offers to their respective exchanges or FINRA. The exchanges and FINRA, in turn, are required to make their best bids and offers available in consolidated quotation data.

ing volume threshold to 0.25% for ATSS, including dark pools that use actionable IOIs, for displaying best-priced orders; and, (3) create the same level of post-trade transparency for dark pools as for registered exchanges by amending existing rules to require real-time disclosure of the dark pool that executed the trade.¹⁴³

In an effort to make trading through dark pools more transparent, the SEC proposals are intended to “enhance price transparency and promote fairer and more efficient markets” for U.S.-listed stocks.¹⁴⁴

1. Actionable Indications of Interest

Recent years have seen “a number of dark pools transmit[ting] IOIs to selected market participants[,] . . . convey[ing] substantial information about [the dark pools’] available trading interest.”¹⁴⁵ Naturally these messages, similar to displayed quotations, may appreciably induce orders to be routed to a particular venue.¹⁴⁶

IOIs do not necessarily provide the receiver all the information, such as the price and size of available trading interest in the dark pool, but “the practical context in which they are transmitted . . . render[s] them ‘actionable,’” which means the messages “effectively alert the recipient that the dark pool currently has trading interest in a particular symbol, side (buy or sell), size (minimum of a round lot of trading interest), and price (equal to or better than the national best bid for buying interest and the national best offer for selling interest).”¹⁴⁷

Price information can be explicitly or implicitly obtained through the IOI.¹⁴⁸ Generally, Rule 611 of Regulation NMS “prevents trading centers, including dark pools, from executing orders at prices inferior to the national best bid or offer (“NBBO”).”¹⁴⁹ Therefore, an IOI recipient can reasonably assume that “the price associated with the

Id. at 61,211-12.

143. *Id.* at 61,210.

144. *Id.*

145. *Id.* at 61,276.

146. SEC Dark Pools Proposal, *supra* note 22, at 61,226.

147. *Id.* at 61,226. A ‘round lot’ can be defined as “a group of 100 shares of a stock, or any group of shares that can be evenly divided by 100 A round lot has historically been the smallest order that can be placed through an exchange.” *Round lot*, INVESTOPEDIA, <http://www.investopedia.com/terms/r/roundlot.asp> (last visited Apr. 7, 2014).

148. SEC Dark Pools Proposal, *supra* note 22, at 61,226.

149. 17 C.F.R. § 242.611(a)(1) (“A trading center shall establish, maintain, and enforce written policies and procedure that are reasonably designed to prevent trade-throughs on that trading center of protected quotations in NMS stocks that do not fall within an exception set forth [in this section] and, if relying on such an exception, that are reasonably designed to assure compliance with the terms of the exception.”); SEC Dark Pools Proposal, *supra* note 22, at 61,226.

IOI is the NBBO or better.”¹⁵⁰ Further, if a “recipient has responded with orders to the sender” and experienced repeated success by way of “executions at the NBBO or better with a least one round lot[, then] the recipient . . . can reasonably conclude that a responding contra-side marketable order will result in an execution,” so long as the “dark pool trading interest has not been completely executed against or cancelled.”¹⁵¹ The information explicitly and implicitly learned, then, places actionable IOIs on par with displayed quotations at the NBBO in terms of functionality.¹⁵²

Order information disclosed in actionable IOIs can be particularly valuable in regard to quoted spreads.¹⁵³ If included in the consolidated quotation data, actionable IOIs with prices better than the NBBO, as allowed by Rule 611, would effectively narrow the quoted spread for an NMS stock.¹⁵⁴ With the understanding that the quoted spread is essentially a negotiation in progress,¹⁵⁵ a reduced quoted spread indicates that two parties, at the minimum, are closer to an execution.¹⁵⁶ Actionable IOIs detailing prices (explicitly or implicitly) equal to the NBBO could also increase the quoted depth at the best prices for an NMS stock.¹⁵⁷

“The public [unfortunately] does not have access to this valuable information concerning the best prices and sizes for NMS stocks.”¹⁵⁸ “[D]ark pools transmit this information only to select market participants.”¹⁵⁹ Therein lies the problem: “actionable IOIs [potentially] create a two-tiered level of access to information [regarding] the best

150. SEC Dark Pools Proposal, *supra* note 22, at 61,226.

151. *Id.* “A ‘marketable’ order is priced so that it is immediately executable at the best displayed quotations (that is, a buy order priced at the national best offer or higher and a sell order priced at the national best bid or lower).” *Id.* at 61,211 n.22.

152. *Id.* at 61,226.

153. *Id.* The quoted spread is the difference between the bid and ask prices and is calculated by subtracting each market center’s current best bid from that market center’s current best ask. *Execution Quality Definitions*, BATS TRADING, http://www.batstrading.com/market_data/execution_quality/definitions/ (last visited Apr. 7, 2014).

154. SEC Dark Pools Proposal, *supra* note 22, at 61,211. For example, suppose the NBBO for an NMS stock were \$100.55 and \$100.60. An actionable IOI to buy with a price of \$100.57 would, if included in the consolidated quotation data, create a new NBBO of \$100.57 and \$100.60, resulting in a quoted spread reduced by 40%.

155. Glenn Curtis, *The Basics of the Bid-Ask Spread*, INVESTOPEDIA, <http://www.investopedia.com/articles/trading/121701.asp> (last accessed Nov. 8, 2014).

156. SEC Dark Pools Proposal, *supra* note 22, at 61,211.

157. *Id.* at 61,229. For example, suppose an investor wishes to sell 1000 shares of an NMS stock when the national best bid may only list 100 shares. Multiple dark pools that contemporaneously transmit actionable IOIs to buy the stock (aggregately totaling 900 shares) would represent in a 900% increase in the available size at NBBO prices or better.

158. *Id.* at 61,211.

159. *Id.*

prices and sizes for NMS stocks.”¹⁶⁰ Such a result undermines the Exchange Act’s aim of a national market system.¹⁶¹ “The consolidated quotation data is intended [as] a single source [locale]” for information of a listed security’s best price across all markets.¹⁶² This single plan processor—that is, the consolidated quotation data—is the alternative to forcing the public to obtain data from numerous different exchanges and markets in order to learn the best prices.¹⁶³ Dark pools impede the Exchange Act’s objectives by circulating information functionally similar to quotations through IOIs without including that information in the consolidated quotation data.¹⁶⁴

To address concerns relating to actionable IOIs, the SEC proposes to amend the Exchange Act quoting requirements to apply expressly to actionable IOIs.¹⁶⁵ Specifically, it proposes to amend the Rule 600(b)(8) definition of “bid or offer” in Regulation NMS to delete the exclusion of IOIs.¹⁶⁶ The way in which “bid or offer” is defined directly determines the scope of Rule 602 of Regulation NMS and Rule 301(b)(3) of Regulation ATS, which promulgates the types of trading interests that must be included in the consolidated quotation data.¹⁶⁷ For example, size-discovery IOIs would be excluded from the consolidated quotation data.¹⁶⁸

Rule 602 of Regulation NMS provides the public dissemination requirements for national securities exchanges, national securities associations, exchange members, and OTC market makers.¹⁶⁹

160. *Id.*

161. SEC Dark Pools Proposal, *supra* note 22, at 61,211. See 15 U.S.C. § 78f(b)(5), providing: The rules of the exchange are designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system.

Id. (emphasis added).

162. SEC Dark Pools Proposal, *supra* note 22, at 61,226; see 17 C.F.R. § 242.603(b) (providing that joint cooperation is required of every national securities exchange on which an NMS stock is traded in order to disseminate all consolidated information through a single plan processor).

163. SEC Dark Pools Proposal, *supra* note 22, at 61,226; see 17 C.F.R. § 242.603(b).

164. SEC Dark Pools Proposal, *supra* note 22, at 61,226.

165. *Id.* at 61,608.

166. *Id.* at 61,226.

167. *Id.* at 61,210 & 61,212.

168. SEC Dark Pools Proposal, *supra* note 22, at 61,210 & 61,225 (“Specifically, the proposed amendment to the definition would exclude any actionable IOIs ‘for a quantity of NMS stock having a market value of at least \$200,000 that are communicated only to those who are reasonably believed to represent current contra-side trading interest of at least \$200,000’ (‘size-discovery IOIs’).”).

169. *Id.* at 61,211 (Currently, FINRA is the only national securities association subject to Rule 602.); see 17 C.F.R. § 242.602.

Currently, Rule 602 requires “exchange members and OTC market makers to provide their best-priced bids and offers to their respective exchanges or FINRA.”¹⁷⁰ The exchanges and FINRA “are [then] required to make their best bids and offers available in the consolidated quotation data.”¹⁷¹

Regulation NMS currently defines “bid or offer” as

[t]he bid price or the offer price communicated by a member of a national securities exchange or member of a national securities association to any broker or dealer, or to any customer, at which it is willing to buy or sell one or more round lots of an NMS security, as either principal or agent, *but shall not include indications of interest*.¹⁷²

The original 1978 draft of Rule 602 excluded IOIs from the definition of bid or offer.¹⁷³

Rule 301(b)(3) of Regulation ATS provides the order display and execution access requirements by which ATSS must comply.¹⁷⁴ An ATS that exceeds a 5% trading volume threshold in an NMS stock is required to provide information of its “best-priced orders to an exchange or association for inclusion in the consolidated quotation data made available under Rule 602.”¹⁷⁵ In Rule 300(e) of Regulation ATS, “order” is defined to mean “any firm indication of a willingness to buy or sell a security, as either principal or agent, *including any bid or offer quotation*, market order, limit order, or other priced order.”¹⁷⁶ To clarify, this definition therefore “includes, but is not limited to, bid or offer quotations.”¹⁷⁷ Although Regulation ATS abstains from defining “bid or offer quotation,” the SEC considers the term to possess the same meaning as “bid or offer” within Rule 600(b)(8) of Regulation NMS.¹⁷⁸

170. SEC Dark Pools Proposal, *supra* note 22, at 61,221.

171. *Id.* at 61,221; *See* 17 C.F.R. § 242.603(b).

172. 17 C.F.R. § 242.600(b)(8) (emphasis added).

173. Dissemination of Quotations for Reported Securities, Exchange Act Release No. 14,415, 1978 WL 197002, *9 (Feb. 1, 1978) (“The terms “bid” or “offer” shall mean the bid price of the offer price most recently communicated by an exchange member or third market maker to any broker or dealer, or to any customer, at which he is willing to buy or sell a particular amount of a reported security, as either principal or agent, but shall not include indications of interest.”); SEC Dark Pools Proposal, *supra* note 22, 61,212 n.32.

174. SEC Dark Pools Proposal, *supra* note 22, at 61,221; *see* 17 C.F.R. § 242.301(b)(3).

175. SEC Dark Pools Proposal, *supra* note 22, at 61,212; *see* 17 C.F.R. § 242.301(b)(3)(B).

176. 17 C.F.R. § 242.300(e) (emphasis added); SEC Dark Pools Proposal, *supra* note 22, at 61,212.

177. SEC Dark Pools Proposal, *supra* note 22, at 61,212.

178. *Id.* Rule 600(b)(62) of Regulation NMS defines “quotation” to mean “a bid or an offer.” *See* 17 C.F.R. § 242.600(a)(62).

2. ATS Display Obligations

In conjunction with its proposed amendments regarding IOIs, “[t]he Commission is also proposing certain amendments to Regulation ATS.”¹⁷⁹ The proposed amendments to Regulation ATS would “revis[e] the order display requirements in Rule 301(b)(3),” allowing the national market system incorporation of the best-priced orders on ATSs.¹⁸⁰ With an amendment to Rule 301(b)(3)(i)(B) specifically, the Commission seeks to “reduce the average daily trading volume threshold from 5% to 0.25%.”¹⁸¹ The Commission also proposes an amendment of “Rule 301(b)(3)(ii) of Regulation ATS to clarify that an ATS must publicly display and provide access to its best-priced orders in NMS stocks when such orders are displayed to more than one person (other than ATS employees), regardless of whether such persons are subscribers of the ATS.”¹⁸² Finally, the Commission proposes to amend Rule 301(b)(3) to match the “proposed size discovery exclusion from the definition of ‘bid’ or ‘offer.’”¹⁸³

Regulation ATS Rule 301(b)(3) “imposes certain order display and execution access” responsibilities on ATSs.¹⁸⁴ These responsibilities currently apply to any ATS that meet certain criteria.¹⁸⁵ ATSs that meet the criteria must provide “a national securities exchange or national securities association (each of which is a “self-regulatory organization” or “SRO”))” price and size information for “orders at the highest buy price and lowest sell price for that NMS stock, displayed to more than one subscriber of the ATS, for inclusion” by the SRO in the quotation data made available to vendors.¹⁸⁶ “An ATS that meets the volume threshold [(currently 5%, but proposed to be lowered to 0.25%)] also [must] comply” with certain access standards, outlined in Rule 301(b)(3)(iii), regarding what orders an ATS must “provide to an SRO pursuant to Rule 301(b)(3)(ii).”¹⁸⁷ Thus, “the display and access requirements of Rules 301(b)(3)(ii) and 301(b)(3)(iii), respec-

179. SEC Dark Pools Proposal, *supra* note 22, at 61,213.

180. *Id.*

181. *Id.*

182. *Id.*

183. *Id.*

184. SEC Dark Pools Proposal, *supra* note 22, at 61,213.

185. *Id.* Any ATS that meets the following requirements must comply with Rule 301(b)(3)(ii):

(A) displays subscriber orders to any person (other than alternative trading system employees); and (B) during at least 4 of the preceding 6 calendar months, had an average trading volume of 5 percent or more of the aggregate average daily share volume for [an] NMS stock as reported by an effective transaction reporting plan.

17 CFR § 242.301(b)(3)(i); SEC Dark Pools Proposal, *supra* note 22, at 61,213.

186. SEC Dark Pools Proposal, *supra* note 22, at 61,213.

187. *Id.*

tively," would apply for NMS stocks whose average daily volume with an ATS were 0.25% or more during at least four of the preceding six calendar months.¹⁸⁸

Currently, the Regulation ATS display requirements apply only to orders displayed to more than one subscriber in the alternative trading system.¹⁸⁹ By eliminating the phrase "in the alternative trading system" and replacing it with the phrase "(other than alternative trading system employees)," the Commission proposes an amendment to Rule 301(b)(3)(ii) that makes display requirements applicable regardless of whether exposed persons are subscribers of the ATS.¹⁹⁰ By inserting the exclusionary phrase, the Commission clarifies that no display obligations are triggered solely because ATS employees can see order information.¹⁹¹

Lastly, the Commission proposes to revise Rule 301(b)(3)(ii) of Regulation ATS by adding an exclusion for certain large orders.¹⁹² The Commission proposes to amend Rule 301(b)(3)(ii) to exclude "orders having a market value of at least \$200,000 that are displayed only to those who are reasonably believed to represent current contra-side trading interest of at least \$200,000;" a size discovery order, therefore, does not qualify as an "other priced order" for purposes of order display and execution access requirements under Rule 301(b)(3)(ii).¹⁹³ The proposed amendment is consistent with Rule 602.

3. Post-Trade Transparency for ATSS¹⁹⁴

"Nationwide disclosure of market information is necessary to" ensure efficient securities pricing, maximized depth and liquidity of se-

188. *Id.*

189. *Id.* at 61,216; see 17 C.F.R. § 242.301(b)(3)(B)(ii) ("[s]uch alternative trading system shall provide to a national securities exchange or national securities association the prices and sizes of orders at the highest buy price and the lowest sell price for such NMS stock, displayed to more than one person in the alternative trading system, for inclusion in the quotation data made available by the national securities exchange or national securities association").

190. SEC Dark Pools Proposal, *supra* note 22, at 61,216.

191. *Id.*

192. *Id.* at 61,217. Rule 301(b)(3)(ii) currently requires an ATS "to provide to an SRO the prices and sizes of the orders at the highest buy price and lowest sell price for any NMS stock for inclusion in the public quote stream that are, [inter alia], displayed to more than one person in the ATS." *Id.* at 61,216-17.

193. *Id.* at 61,217.

194. ATSS are subject to rules set forth in Regulation ATS. SEC Dark Pools Proposal, *supra* note 22, at 61,219. "ATSS can choose whether to register as national securities exchanges or to register as broker-dealers . . . ATSS that register as broker-dealers are required to be SRO members." *Id.* ATSS must be members of FINRA (an SRO) because they can effect transactions in the OTC market. *Id.* Under Rule 601(b) of Regulation NMS, SRO members

curities markets, and investor opportunity to receive the best possible executions.¹⁹⁵ The Commission proposes to increase the level of post-trade transparency for ATSs.¹⁹⁶ Specifically, the Commission proposes requiring ATS trades to carry a specific publicly disseminated identifier in order to equalize the trade reporting requirements with that of exchanges; the public data stream would disclose the identity of individual ATSs executing trades.¹⁹⁷ The proposal does not include required identification of ATSs on trade reports in the public data stream for large size trades.¹⁹⁸

B. *Financial Industry Regulatory Authority's Proposed Regulations*

On September 30, 2013, FINRA filed with the SEC proposed changes to FINRA Rules 4552, 6160, 6170, 6480, and 6720.¹⁹⁹ The proposals combine to require ATSs to report to FINRA “weekly volume information and number of trades” corresponding to securities transactions within each ATS using a unique market participant identifier (“MPID”), which are used by registered FINRA firms in lit markets, when reporting to FINRA.²⁰⁰ FINRA would then report the volume and trade count information for equity securities public.²⁰¹ In simple terms, the proposed rules look to add transparency to murky dark pools by requiring ATSs to report certain statistics. FINRA’s proposed regulations are designed to enhance its “regulatory and automated surveillance efforts,” as well as “enhance transparency into the over-the-counter market.”²⁰²

1. Reporting Requirement

FINRA’s proposed rule changes include creating an obligatory reporting responsibility, which would require each ATS to report to

must transmit the information required by the transaction reporting plans to the SRO. *Id.* “OTC trades, including trades executed by ATSs, are reported to the consolidated trade streams through one of the trade reporting facilities (“TRFs”) operated by FINRA on behalf of exchanges, or through FRINA’s ADF.” *Id.* The trades are identified as OTC trades in the published trade reports, but the reports “do not identify the particular ATS or other broker-dealer that reported the trade.” SEC Dark Pools Proposal, *supra* note 22, 61,219.

195. *Id.* at 61,219.

196. *See id.*

197. *Id.* at 61,219.

198. *Id.* at 61,220. “Large size trades” is defined identically as with the other proposed amendments discussed *supra* Part III.A.2.: an order of \$200,000 or more. *Id.*

199. FINRA Dark Pools Proposal, *supra* note 54, at 3. FINRA’s proposed regulations are set to take effect on November 10, 2014.

200. *Id.*

201. *Id.*

202. *Id.* at 4.

FINRA its “aggregate weekly volume information and number of trades.”²⁰³ The information submitted to FINRA would be provided according to each security in only those securities subject to FINRA trade reporting requirements.²⁰⁴ Only those ATSS that have filed a Form ATS with the SEC would be subject to the reporting requirement.²⁰⁵ The reporting requirement is designed to provide FINRA with “information necessary to surveil for compliance with the display obligations and the fair access requirements in Regulations ATS.”²⁰⁶

The required information would need to be provided “on a security-by-security basis within seven business days” at the close of each calendar week.²⁰⁷ FINRA would then publish on its website the reported information on a weekly basis, subject to appropriate disclosures.²⁰⁸

2. MPID Requirement

In addition to the reporting requirement described above, FINRA’s proposed rule change also “requires that a member operating an ATS obtain for each ATS a single, unique MPID that is designated for exclusive use for reporting each ATS’s transactions.”²⁰⁹ Multiple MPIDs would need to be assigned for members that operate multiple ATSS.²¹⁰

Each member must use each separate MPID to report all executed transactions within the ATS to the appropriate reporting facility.²¹¹ Once implemented, the proposed rule change would enable FINRA to easily “determine whether an ATS has reached any of the volume thresholds in Regulation ATS.”²¹²

IV. SUBJECT OF ANALYSIS: ARE PROPOSED DARK POOL REGULATIONS POISED TO END INFORMATION LEAKAGE AND FRONT-RUNNING?

This Part analyzes the SEC’s and FINRA’s proposed regulations of dark pools in regards to their effectiveness at curbing information leakage and front-running. Several general principles guide my analy-

203. *Id.* at 6.

204. FINRA Dark Pools Proposal, *supra* note 54, at 6.

205. *Id.*

206. *Id.* at 7.

207. *Id.*

208. *Id.* at 8.

209. FINRA Dark Pools Proposal, *supra* note 54, at 11.

210. *Id.*

211. *Id.* at 14.

212. *Id.* at 15.

sis. These principles are designed to create a truly dark trading environment free of front-running.

First, order price and volume information should generally be transparent to the public. Pre-trade non-transparency may be appropriate for certain types of market structures and orders, such as large block orders. Those circumstances require a consideration of the impact non-transparency will have on price discovery, fairness and overall market quality and efficiency. Second, post-trade information, including trades executed in dark pools or as a result of dark orders entered in transparent markets, should be transparent to the public. Third, in place should be a reporting regime and/or means of accessing information by appropriate regulatory authorities regarding orders and trade information in venues that offer trading in dark pools or dark orders. Fourth, dark pools and transparent markets that offer dark orders should provide market participants with sufficient information so that market participants are able to fully understand the manner in which their orders are handled and executed.

A. *Proposal One: Amend “Bid or Offer” to
Include Actionable IOIs*

The SEC proposes to amend the definition of “bid or offer” to include actionable IOIs and, therefore, be subject to disclosure requirements.²¹³ The SEC’s proposal is intuitively sound: dark pools that transmit IOIs cannot be considered truly dark because IOI recipients can reasonably assume that the price associated with the IOI is the NBBO or better. By transmitting this valuable information to selected market participants only, dark pools create a two-tiered level of access to information.²¹⁴ These mysterious trading pools should be subject to order price and volume information disclosures or be required to operate fully dark in order to prevent possible information leakage.

Practically speaking, by requiring an ATS to include actionable IOIs in disclosure requirements or, alternatively, to go fully dark, dark pools will not be able to display IOIs to only those certain individuals with a paid connection to a dark pool; dark pools utilizing actionable IOIs to inform various market participants of availability of liquidity

213. See SEC Dark Pools Proposal, *supra* note 22, at 61,211-12.

214. See Letter from Ann Vleck, Managing Dir. & Associate Gen. Counsel, SIFMA, to Elizabeth M. Murphy, Secretary, SEC 10 (Feb. 18, 2010), available at <http://www.sec.gov/comments/s7-27-09/s72709-47.pdf> [hereinafter Letter from Ann Vleck to Elizabeth Murphy].

within its system would need to display the orders upon which those IOIs are based as quotes in the public quote stream.²¹⁵

B. Proposal Two: Lower the Trading Threshold for Mandated Public Display

The second SEC proposal is to lower the trading threshold at which a dark pool must publicly display its price from 5% to 0.25% of the average daily outstanding stock volume.²¹⁶ This proposal presents little in the way of addressing information leakage and front-running. This Comment, therefore, refrains from addressing the merits of the SEC's second proposal.

Of note, though, is this proposal's exclusion of large institutional block orders from mandated public displaying. The Commission proposes that a quantity of NMS stock with a market value of at least \$200,000 that is communicated to only persons believed to represent current contra-side trading interest of at least \$200,000 would be excluded from the ATS identity-reporting requirement.²¹⁷ Non-transparency in those instances is efficient and in furtherance of overall market quality; dark pools were designed to be a safe haven for institutional investors moving block orders.

However, the size discovery exclusion may not be necessary. Specifically, if the Commission were to permit delayed, as opposed to real-time, reporting of the identity of ATSS in trade reports as described below, a size discovery exemption may be unnecessary.²¹⁸ Without delayed identity reporting, though, the SEC's size discovery exclusion would be necessary to protect block trades from opportunistic traders.²¹⁹

C. Proposal Three: Require ATSS to Report Real-Time Post-Trade Data

The SEC's third proposal would require ATSS to be brought into line with exchanges in terms of reporting real-time post-trade data. There is a split of opinion among industry commentators on whether the nature and timing of dark pool data reporting is critical to the

215. *Securities and Futures Regulation Group Update: SEC Action on Dark Pools*, SCHIFF HARDIN LLP (Nov. 24, 2009), available at [http://www.schiffhardin.com/File%20Library/Publications%20\(File%20Based\)/HTML/secfut_112409index.html](http://www.schiffhardin.com/File%20Library/Publications%20(File%20Based)/HTML/secfut_112409index.html).

216. See SEC Dark Pools Proposal, *supra* note 22, at 61,213.

217. See *id.* at 61,211; see also *supra* Part III.A.1.

218. Letter from Ann Vlcek to Elizabeth Murphy, *supra* note 206, at 8.

219. *Id.*

possibility of information leakage, the susceptibility to front-running tactics and, ultimately, dark pools' success.²²⁰

Real-time reporting requirements are in direct conflict with the hallmark objective of "limiting information leakage and market impact on large institutional orders."²²¹ Public identification of a specific dark pool where a trade has been executed creates concerns that this information could be used to detect a large institutional buy or sell order, allowing insidious traders to trade against that order to the disadvantage of the institution.²²² When provided with real-time post-trade data, particularly the name of the trading dark pool and what stocks are being traded at what time, insidious arbitrage strategists would excel at picking off order flow.²²³

Of course, post-trade reporting is preferable and such information should be transparent to the public. The issue here is one of timing: real-time trade reporting that reveals the name of the specific dark pool will likely increase the amount of front-running in dark pools.²²⁴ Real-time disclosure, not disclosure generally, would provide predatory short-term traders with information allowing them to take advantage of block order information of institutional investors.²²⁵ The better approach, then, is to amend the SEC's third proposal to require post-trade reporting, which includes specific dark pool information, to be "late enough in time so as to be little value" to those insidious traders looking to front-run.²²⁶ Post-market close reporting could offer insight as to market demographics for institutional traders without offering up trade positions on a platter for insidious traders.²²⁷ End-of-the-week reporting could further reduce the chance of gamesmanship, particularly for large block trades executed over multiple days.²²⁸

Some industry commentators argue that this requirement is "of little consequence to parties executing in [dark pools]."²²⁹ On the issue

220. Letter from Larry Tabb, Founder & CEO, TABB Group, to Elizabeth M. Murphy, Secretary, SEC 4 (Dec. 8, 2009), available at <http://www.sec.gov/comments/s7-27-09/s72709-21.pdf> [hereinafter Letter from Larry Tabb to Elizabeth Murphy].

221. *Id.*

222. Letter from Seth Merrin, CEO, Liquidnet, to Elizabeth M. Murphy, Secretary, SEC E-1 (Dec. 21, 2009), available at <http://www.sec.gov/comments/s7-27-09/s72709-25.pdf> [hereinafter Letter from Seth Merrin to Elizabeth Murphy].

223. Letter from Larry Tabb to Elizabeth Murphy, *supra* note 220, at 4.

224. *See id.*

225. Letter from Seth Merrin to Elizabeth Murphy, *supra* note 222, at 7.

226. Letter from Larry Tabb to Elizabeth Murphy, *supra* note 220, at 4.

227. *Id.*

228. Letter from Seth Merrin to Elizabeth Murphy, *supra* note 222, at 7.

229. *Early Thoughts on the SEC Proposals to Strengthen Regulation on Dark Pools*, WOODBINE ASSOCS. 3 (Oct. 23 2009), available at <http://www.woodbineassociates.com/uploads/Wood>

of information leakage, these commentators contend that “post-execution market movement due to information leakage is highly unlikely.”²³⁰ Trading venues have a 90-second reporting window in which they must report a trade before it is considered late.²³¹ A delay, no matter the size, between execution and reporting makes ex-post price movement based on real-time post-trade data improbable.²³² A reporting delay of only two or three seconds after execution is the equivalent of two-or-three thousand milliseconds. In that amount of time, a message could be sent from Chicago to New Jersey and back again 230 times.²³³ In other words, even a short reporting delay of two or three seconds is considered “an eternity in the current [HFT] environment,” rendering the issue of real-time disclosure moot.²³⁴

These two positions are not irreconcilable. Knowing that a particular execution occurred, even two or three seconds after it occurred, may suggest to a monitoring trader that additional liquidity is still available in the executing dark pool.²³⁵ In a likely scenario, a trader seeking liquidity could use the post-trade information to position itself on the right side of the market to execute against the residual shares.²³⁶ This is especially apparent in cases where institutional block orders are executed over multiple days.²³⁷ Additionally, if post-market close reporting is found to be too generous for opportunistic short-term traders, the Commission could, instead, require each ATS to make public the ATS’s total aggregate trading volume for the day.²³⁸ This alternative would provide a perspective of the true marketplace volume of ATS activity, while maintaining safeguards against information leakage.²³⁹

bine_Opinion_-_Early_Thoughts_-_Dark_Pool_Regulation_-_October_23_2009.pdf [hereinafter Woodbine Opinion].

230. *Id.*

231. *Id.*

232. *Id.*

233. See LEWIS, *supra* note 2, at 9-10, 22 (discussing a new fiber-optic cable line between Chicago and New Jersey able to deliver orders round trip in just 13 milliseconds, which is faster than next fastest of 14.65 seconds of “The Gold Route.”).

234. Woodbine Opinion, *supra* note 229, at 3.

235. *Id.*

236. *Id.*

237. Letter from Seth Merrin to Elizabeth Murphy, *supra* note 222, at 7.

238. Letter from Timothy J. Mahoney, CEO, Bids Trading, to Elizabeth M. Murphy, Secretary, SEC 3 (Feb. 18, 2010), available at <http://www.sec.gov/comments/s7-27-09/s72709-46.pdf>.

239. *Id.* at 2.

VI. CONCLUSION

The SEC is rightly attempting to regulate dark pools. Given this Comment's analysis of those proposed regulations in light of the purposes of dark pools, the SEC still needs to do more to protect dark pool investors.

In re Pipeline Trading Systems, LLC and *In re eBX, LLC* emphasize what this Comment argues are the two largest dark pool weaknesses demanding attention by regulatory authorities: information leakage and front-running. This Comment analyzed three SEC proposed regulations, including (1) amending "bid or offer" to include actionable indications of interest; (2) lowering the trading threshold for mandated public display; and (3) requiring ATSS to report real-time post-trade data. Ultimately, this Comment concludes that the proposals are a step in the right direction, but are not adequately designed to target information leakage and front-running. This Comment also provides useful analysis that is applicable to future proposals and, specifically, for analyzing whether such proposals will reduce or prevent the two largest dark pool weaknesses.

Dark pool ATSS play an important role in the efficient functioning of our securities markets. Although the notion of SEC regulation of dark pools is a positive development, the current proposals need modification with the prevention of information leakage and predatory practices in mind.

