

Slowing Down High-Speed Trading: Why the SEC Should Allow a New Exchange a Chance to Compete*

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I. OVERVIEW

Investors' Exchange (IEX) is to public stock exchanges what Uber and Lyft are to traditional taxi companies, and what Airbnb is to hotel chains.¹ The exchange uses technology called a magic shoebox—thirty-eight miles of fiber-optic cable coiled inside of a box.² This magic

* The SEC made its decision and approved IEX as a public exchange on June 17, 2016. Press Release, U.S. Sec. & Exch. Comm'n, SEC Approves IEX Proposal to Launch Nat'l Exch., Issues Interpretation on Automated Sec. Prices (June 17, 2016). This Comment was written in March 2016. The SEC's approval of IEX's application does not substantially affect the author's analysis or the controversy over existing regulation and emerging public policy decisions.

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1. See Tess Townsend, *Why Wall Street Is So Afraid of This Startup Stock Exchange*, INC. (Jan. 25, 2016), <http://www.inc.com/tess-townsend/how-iex-problems-like-uber.html>; see also Letter from J.W. Verret, Assistant Professor of Law, George Mason University School of Law, to Brent J. Fields, Sec'y, SEC (Nov. 20, 2015), <https://www.sec.gov/comments/10-222/10222-23.pdf> [hereinafter Verret].

2. Matt Levine, *The 'Flash Boys' Exchange Is Still Controversial*, BLOOMBERG VIEW (Dec. 22, 2015, 4:14 PM), <http://www.bloombergview.com/articles/2015-12-22/the-flash-boys->

shoebox slows down both incoming orders to buy and sell stocks and outgoing information about those sales by 350 microseconds, respectively.³ Why slow things down? IEX is using this technology in an attempt to level the playing field between high-frequency traders (HFTs) and all other stock market participants.⁴ By delaying new transactions and quotation changes, HFTs traditionally using speed to their advantage in the stock market are prevented from racing ahead of others to complete transactions that are advantageous to them.⁵

Currently, IEX operates as a “dark pool” or Alternative Trading System (ATS),⁶ which is “a private venue where trades are not disclosed until after they happen.”⁷ However, on August 21, 2015, IEX applied with the United States Securities and Exchange Commission (SEC) to become a registered national securities exchange.⁸ The application created quite a bit of controversy and generated more than 400 comments.⁹ The application as it was originally filed faced criticism, principally from major existing public exchange companies and one large investment firm, Citadel.¹⁰ The first criticism was that IEX cannot be

exchange-is-still-controversial [hereinafter Levine, *Still Controversial*]; Matt Levine, *The ‘Flash Boys’ Exchange Is Growing Up*, BLOOMBERG VIEW (Sept. 16, 2015, 4:47 PM), <http://www.bloombergview.com/articles/2015-09-16/the-flash-boys-exchange-is-growing-up> [hereinafter Levine, *Growing Up*].

3. Levine, *Still Controversial*, *supra* note 2; Townsend, *supra* note 1.

4. See Levine, *Growing Up*, *supra* note 2.

5. See Merritt B. Fox, Lawrence R. Glosten & Gabriel V. Rauterberg, *The New Stock Market: Sense and Nonsense*, 65 DUKE L.J. 191, 197, 226 (2015); see also Townsend, *supra* note 1.

6. See Townsend, *supra* note 1.

7. Annie Massa, *IEX Adjusts Exchange Application To Circumvent Key Objection*, TRADERS MAG. ONLINE NEWS (Mar. 1, 2016), http://www.tradersmagazine.com/news/ecns_and_exchanges/iex-adjusts-exchange-application-to-circumvent-key-objection-115058-1.html.

8. Application of: Inv. Exchange, LLC for Registration as a Nat’l Sec. Exchange, Securities Exchange Act Release No. 34-78101 (June 17, 2016), 81 Fed. Reg. 41142, 41142 (Jun. 23, 2016). This Comment was written in March 2016. The SEC made its decision and approved IEX as a public exchange on June 17, 2016. Press Release, U.S. Sec. & Exch. Comm’n, SEC Approves IEX Proposal to Launch Nat’l Exch., Issues Interpretation on Automated Sec. Prices (June 17, 2016) [hereinafter Press Release] (on file with the SEC).

9. Bill Alpert, *SEC To Decide on IEX Group Stock Exchange*, BARRON’S (Mar. 5, 2016), <http://www.barrons.com/articles/sec-to-decide-on-iex-group-stock-exchange-1457157581>. The number of comments on IEX’s application to become a public exchange is greater than the number of all the comments received about all other public stock exchange applications combined. Townsend, *supra* note 1. In a far-off second place was the Nasdaq stock exchange, which generated ninety-seven. *Id.*

10. See, e.g., Letter from Elizabeth K. King, Gen. Counsel & Sec’y, NYSE, to Brent J. Fields, Sec’y, SEC (Nov. 12, 2015), <https://www.sec.gov/comments/10-222/10222-19.pdf>; Letter from John C. Nagel, Managing Dir. & Senior Deputy Gen. Counsel, Citadel, to Brent J. Fields, Sec’y, SEC (Nov. 6, 2015) <https://www.sec.gov/comments/10-222/10222-16.pdf> [hereinafter Nagel]; see also Nathaniel Popper, *Plan for New Stock Exchange Stirs Furious Debate*, N.Y. TIMES (Nov. 16, 2015), http://www.nytimes.com/2015/11/17/business/dealbook/plan-for-new-stock-exchange-stirs-furious-debate.html?_r=0. The major stock exchanges opposing IEX as a

permitted to operate as a public securities exchange under current law because it purposefully delays orders.¹¹ The second criticism was that IEX creates an unfair marketplace because not all orders are subject to the same delay.¹²

This second issue is now moot. In an application amendment filed by IEX with the SEC on February 29, 2016, the company stated that it will redesign its system to subject all outgoing information from its system to the same delay.¹³ “With its proposed redesign, IEX has winnowed the debate over its exchange application down to one major question for the U.S. Securities and Exchange Commission to consider: Does its 350-microsecond speed bump fit within current market regulations?”¹⁴ With the SEC review period of IEX’s application scheduled to end on March 21, 2016,¹⁵ a decision will need to be made about whether this amendment is enough for the SEC to approve IEX’s application to become a public exchange.

This Comment will: (1) provide a general overview of the common criticisms of high-speed trading and how IEX’s technology works to solve the potential issues, (2) discuss IEX’s opponents’ concerns, (3) analyze whether IEX’s intentional delay is permitted under current law, and (4) discuss whether the SEC should approve IEX to become a public exchange and the implications IEX’s magic shoebox technology could have on the market.

public exchange are the New York Stock Exchange (NYSE), Nasdaq, and BATS. Alpert, *supra* note 9.

11. See Nagel, *supra* note 10, at 2-3; see Levine, *Still Controversial*, *supra* note 2.

12. See, e.g., Letter from Sophia Lee, Gen. Counsel, IEX, to Brent J. Fields, Sec’y, SEC (Feb. 29, 2016) <https://www.sec.gov/comments/10-222/10222-421.pdf> [hereinafter IEX—Feb. 29, 2016].

13. See *id.*

14. Massa, *supra* note 7.

15. Kevin Dugan, *IEX Sick of SEC Delays on Exchange Approval*, N.Y. POST (Feb. 19, 2016, 10:09 PM), <http://nypost.com/2016/02/19/iex-sick-of-sec-delays-on-exchange-approval/>. On March 17, 2016, sources reported that the SEC would delay its decision on IEX’s application until about mid-June. See Andrew Ackerman & Dave Michaels, *SEC Expected To Delay Decision on Trading Venue IEX Until June*, WALL STREET J. (Mar. 17, 2016, 3:36 PM), <http://www.wsj.com/articles/sec-expected-to-delay-decision-on-trading-venue-iex-until-june-sources-say-1458228245>. The SEC approved IEX as a public exchange on June 17, 2016. Press Release, *supra* note 8.

II. BACKGROUND

A. *Issues with High-Speed Trading*

Technology has transformed the stock market trading system in the United States over the last twenty years.¹⁶ In addition to shifting the logistics of trading from brokers on an actual floor of major stock exchanges to remote trading from computers all over the world, technology has also created HFTs.¹⁷ HFTs are traders in the stock market who use speed to discover changes in the market and to alter “their own orders to take advantage of other traders in the market.”¹⁸ The practice has generated a lot of criticism, in part because of a best-selling book entitled *Flash Boys: A Wall Street Revolt*,¹⁹ which prominently featured IEX’s fight against high-frequency trading.²⁰

There are three main areas of concern with respect to high-speed trading.²¹ The first is electronic front-running: “seeing an investor trying to do something in one place and racing ahead of him to the next.”²² The second is rebate arbitrage: “using the new complexity to game the seizing of whatever legal kickbacks, called rebates within the industry, the exchange offered without actually providing the liquidity that the rebate was presumably meant to entice.”²³ The third is slow-market arbitrage: “when a high-frequency trader was able to see the price of a stock change on one exchange and pick off orders sitting on other exchanges before those exchanges were able to react.”²⁴

Electronic front-running occurs when an HFT detects buying activity on an exchange and predicts that more buying activity will likely occur on other exchanges.²⁵ The HFT then uses the information and its speed to change its quotes on other exchanges.²⁶ The market may be subject to this type of practice when a buyer wants to buy a large quantity of stock.²⁷ Buying a large quantity of stock may frequently require the

16. See Fox et al., *supra* note 5, at 193, 199.

17. See *id.* at 198-99.

18. *Id.* at 193.

19. *Id.*

20. See Popper, *supra* note 10.

21. See Michael Lewis, *The Wolf Hunters of Wall Street*, N.Y. TIMES MAG. (Mar. 31, 2014), http://www.nytimes.com/2014/04/06/magazine/flash-boys-michael-lewis.html?_r=0.

22. *Id.*

23. *Id.* For the purposes of this Comment, rebate arbitrage will not be discussed in depth because it is not an issue that the IEX technology is designed to address.

24. *Id.*

25. See Fox et al., *supra* note 5, at 226.

26. See *id.*

27. See *id.* at 202.

purchase to be executed through multiple exchanges.²⁸ “Through its collocation facility, an HFT learns of the transaction at the exchange that is reached first by the investor’s orders.”²⁹ The HFT “infers from this information that, quite possibly, similar sizable orders are en route to other exchanges as well” and “instantly sends out signals to make advantageous adjustments in the HFT’s limit orders posted on . . . other exchanges.”³⁰

Slow-market arbitrage can occur when the National Best Bid and Offer (NBBO) stock prices change on one exchange and an HFT buys or sells at a better price on a second exchange before the second exchange has updated its information to reflect the new NBBO stock price.³¹ If an HFT “has posted a quote representing the NBO or NBB on one exchange, and subsequently someone else posts an even better quote,” an HFT can learn about the new quote before the NBBO is updated.³² “If, in the short time before the national report updates, a marketable order arrives at the first exchange, the order will transact against the HFT’s now-stale quote.”³³ The HFT can then transact “against the better quote on the second exchange” and make a “riskless profit.”³⁴

The negative effects of high-speed trading activities are debatable.³⁵ However, regardless of any actual effects, there is a perception of unfairness among the general public.³⁶ Indeed, IEX was created as a “fair alternative to a corrupt system”³⁷ by people who perceived the stock market as an unfair place for regular investors.³⁸

B. How the IEX Delay Technology Combats High-Frequency Trading

IEX set out to reform the stock market by using its magic shoebox technology to combat predatory behavior, which includes both electronic

28. *See id.*

29. *Id.*

30. *Id.*

31. *See id.* at 238. The NBBO is “[t]he best (lowest) available ask price and the best (highest) available bid price to investors when they buy and sell securities. National Best Bid and Offer is the bid and ask price the average person will see.” INVESTOPEDIA, <http://www.investopedia.com/terms/n/nbbo.asp> (last visited Mar. 18, 2016). SEC regulations require these prices to be guaranteed to customers. *Id.*

32. Fox et al., *supra* note 5, at 238.

33. *Id.*

34. *Id.*

35. *See generally id.* at 264-66.

36. *Id.* at 266.

37. *See, e.g.,* Townsend, *supra* note 1.

38. *See* Jared Meyer, *Regulators Protect High-Frequency Traders, Ignore Investors*, FORBES (Feb. 23, 2016, 7:16 AM), <http://www.forbes.com/sites/jaredmeyer/2016/02/23/sec-should-stand-up-for-small-investors/#3a67ca211ec6>.

front-running and slow-market arbitrage.³⁹ IEX calculated the 350-microsecond delay time that would be necessary for outgoing information to reach other stock exchanges based on the time it took for information to reach the exchange geographically farthest from IEX's physical location, and then rounded up a little for safe measure.⁴⁰ This delay ensures that information will reach other stock exchanges before it will be detected by HFTs.⁴¹ The delay on outgoing information thus prevents electronic front-running.⁴² Moreover, the delay on incoming orders allows IEX to update the NBBO before any trades can be executed based on outdated information.⁴³ The delay on incoming information thus prevents slow-market arbitrage.⁴⁴ IEX created the 350-microsecond delay to replicate the amount of fiber that would be used for information to travel the physical distance of approximately thirty-eight miles.⁴⁵

To use its magic shoebox to equal the playing field between HFTs and all other investors, IEX does not subject some actions to the 350-microsecond delay.⁴⁶ “The idea is that sometimes IEX will, on behalf of its institutional-investor customers, cut ahead of the line, because the line is full of predatory high-frequency traders.”⁴⁷ Specifically, IEX would “cut ahead of the line” in two contexts in order to protect investors from high-frequency trading.⁴⁸

First, IEX would only require midpoint orders resting on the IEX exchange to be subject to the 350-microsecond delay when the orders first enter IEX's system.⁴⁹ This protects midpoint orders that are resting on the IEX exchange from slow-market arbitrage.⁵⁰ IEX will have the time to update the NBBO and midpoint orders resting on the IEX

39. See Lewis, *supra* note 21; see also Levine, *Growing Up*, *supra* note 2.

40. See Lewis, *supra* note 21.

41. See *id.*

42. See *id.*

43. See Letter from Sophia Lee, Gen. Counsel, IEX, to Brent J. Fields, Sec'y, SEC at 4 (Nov. 13, 2015), <https://www.sec.gov/comments/10-222/10222-20.pdf> [hereinafter IEX—Nov. 13, 2015].

44. See *id.*

45. *Id.* at 3.

46. See Levine, *Still Controversial*, *supra* note 2.

47. *Id.*

48. See *id.*

49. See *generally id.* (referencing an example of IEX updating midpoint orders without subjecting those updates to the 350-microsecond delay). Midpoint orders are orders to buy or sell at the amount in between the National Best Buy offer and the National Best Bid offer. *Id.* Midpoint orders may also be referred to as pegged orders. See IEX—Nov. 13, 2015, *supra* note 43, at 13.

50. See IEX—Nov. 13, 2015, *supra* note 43, at 13.

exchange before any new order is completed because it will have 350 microseconds to update the information.⁵¹ By the time an HFT order passes through the IEX 350-microsecond delay the HFT will not be able to sell (or buy) at an outdated price.⁵²

Second, IEX originally planned to allow outgoing buy orders to pass through the IEX router to other exchanges without any delay.⁵³ However, IEX amended its application to require all outgoing orders to be subject to the 350-microsecond delay.⁵⁴ Had IEX not amended its application, electronic front-running would have been prevented by subjecting outgoing information about buy and sell orders executed on the IEX exchange to the 350-microsecond delay while not subjecting buy orders going to other stock exchanges to the 350-microsecond delay.⁵⁵ In other words, IEX would have processed a buy order, and if the entire order could not have been fulfilled by IEX, it would have been sent directly to other exchanges to be completed.⁵⁶ However, IEX would have not immediately disseminated information about the buy order; the information would have been delayed by 350 microseconds.⁵⁷ This delay would have allowed IEX time to send the portion of the order it could not fulfill to other exchanges before an HFT received information about a large buy order that was processed by IEX.⁵⁸ Thus, an HFT would not have been able to race ahead of the buy order to the other exchanges because it would not have had the information in time.⁵⁹

Now, all outgoing orders will be delayed by 350 microseconds.⁶⁰ However, the redesign will still protect investors from electronic front-running by simultaneously processing the part of the order IEX will fulfill and sending the rest of the order to other exchanges.⁶¹ “IEX will estimate how much liquidity is available on IEX and elsewhere, and then simultaneously send out orders to IEX and other venues so that none of

51. See *id.*; see generally Levine, *Still Controversial*, *supra* note 2.

52. See IEX—Nov. 13, 2015, *supra* note 43 at 13; see generally Levine, *Still Controversial*, *supra* note 2.

53. Letter from Sophia Lee, Gen. Counsel, IEX, to Brent J. Fields, Sec’y, SEC at 3 (Feb. 9, 2016), <https://www.sec.gov/comments/10-222/10222-380.pdf> [hereinafter IEX—Feb. 9, 2016].

54. See IEX—Feb. 29, 2016, *supra* note 12.

55. See IEX—Feb. 9, 2016, *supra* note 53, at 4. See appendix for visual diagram. *Id.*

56. See generally *id.* (referencing a visual diagram and an example concerning outgoing buy and sell orders to other stock exchanges and outgoing information about those orders).

57. See *id.*

58. See *id.*

59. See generally *id.* (referencing a visual diagram and an example concerning outgoing buy and sell orders to other stock exchanges and outgoing information about those orders).

60. See IEX—Feb. 29, 2016, *supra* note 12.

61. See *id.*

those orders can be ‘front-run’ by high-speed traders seeing executions on one exchange and racing to update their prices on other exchanges.”⁶²

III. THE CONTROVERSY

Those opposing IEX’s original application to the SEC articulated several reasons for why IEX should not be able to operate as a public stock exchange.⁶³ Opponents claimed that “IEX’s proposed systematic, patent-pending delay in accessing its displayed quotation is inconsistent with Regulation [National Market System].”⁶⁴ They also argued IEX would have an unfair advantage over other market participants because outgoing buy orders would not be subject to the 350-microsecond delay.⁶⁵ Although the second objection is currently moot because of IEX’s amendment to its application,⁶⁶ this Comment will address the issue for informational purposes.

A. Regulation National Market System

Regulation National Market System (Reg NMS) is a set of rules promulgated by the SEC under its grant of power from the Securities Exchange Act of 1934.⁶⁷ These rules provide public stock exchanges with what is classified as a protected bid or protected quotation.⁶⁸ The protected status requires traders to go to the exchange that has the best price to execute a trade.⁶⁹ Specifically, Rule 611 (the Order Protection Rule) requires both that the NBBO be displayed in all markets and that orders to buy and sell stock be executed at a price no lower than the NBBO.⁷⁰ This also means that if an order comes in at the NBBO, an exchange must execute the order; an exchange cannot ignore the order because the quote is protected.⁷¹

62. Matt Levine, *Holdouts, Inquiries, Routers, and Hats*, BLOOMBERG VIEW: MONEY STUFF (Mar. 1, 2016, 8:53 AM), <http://www.bloomberg.com/view/articles/2016-03-01/holdouts-inquiries-routers-and-hats>.

63. See Letter from Elizabeth K. King, Gen. Counsel & Sec’y, NYSE, to Brent J. Fields, Sec’y, SEC (Feb. 8, 2016), <https://www.sec.gov/comments/10-222/10222-375.pdf> [hereinafter King]; see generally Massa, *supra* note 7.

64. King, *supra* note 63.

65. See *id.*; see also Massa, *supra* note 7.

66. Cf. IEX—Feb. 29, 2016, *supra* note 12.

67. See Steven McNamara, *The Law and Ethics of High-Frequency Trading*, 17 MINN. J.L. SCI. & TECH. 71, 84 (2016); see also 15 U.S.C. § 78k-1 (2012).

68. See Levine, *Growing Up*, *supra* note 2.

69. See *id.*; see also McNamara, *supra* note 67, at 86.

70. See McNamara, *supra* note 67, at 86; see also Levine, *Growing Up*, *supra* note 2.

71. See McNamara, *supra* note 67, at 86.

To be a protected bid, the rules require that the bid be an automated quotation displayed by an automated trading center.⁷²

Rule 600(b)(3) of Regulation NMS defines “automated quotation” to mean, in relevant part, a displayed quotation by a trading center that permits an incoming order to be designated as immediate or cancel (“IOC”), immediately and automatically executes an IOC order against the quotation up to its full displayed size, and immediately and automatically displays updates to the quotation to reflect changes to its terms.⁷³

Based on these definitions, opponents of IEX argue that IEX’s quotes cannot be protected quotes under Reg NMS because they do not meet the statutory definition of an automated quote.⁷⁴

To qualify as an automated quote, the requirement for immediate display updates to quotations is in direct conflict with an intentional delay like the 350-microsecond delay imposed by IEX.⁷⁵ IEX opponents point to this conflict as a reason the SEC should deny IEX’s application to become a public exchange.⁷⁶ Thus, if IEX insists on using its magic shoebox to impose an intentional delay, opponents argue that the SEC must first revise Reg NMS before it can be approved.⁷⁷

Conversely, there are arguments against the SEC denying IEX’s application based on a literal reading of Reg NMS.⁷⁸ First, IEX’s 350-microsecond delay is a shorter delay than that which occurs naturally because of the geographic distance between some exchanges.⁷⁹ IEX argues that because the delay imposed by its magic shoebox results in the same time delay that would occur if the exchange was geographically located where almost all exchanges are located in New Jersey, it should be treated no differently than an exchange that simply chose to locate in a different place.⁸⁰ The prime examples provided by IEX are the Chicago Stock Exchange located in Chicago, Illinois, and the NYSE located in

72. 17 C.F.R. § 242.600(b)(57) (2005).

73. IEX—Nov. 13, 2015, *supra* note 43, at 5 (citing 17 C.F.R. § 242.600(b)(3)).

74. *See* Nagel, *supra* note 10, at 2.

75. *See id.* at 3; *see also* 17 C.F.R. §§ 242.600(b)(3), (57) (2005).

76. *See* John McCrank, *Fix Stock Market Rules Before Admitting IEX: Nasdaq CEO*, REUTERS (Jan. 28, 2016, 3:45 PM), <http://www.reuters.com/article/us-nasdaq-iexgroup-regulations-idUSKCN0V62S8>; *see also* Nagel, *supra* note 10, at 2.

77. *See* McCrank, *supra* note 76.

78. *See* Letter from Sophia Lee, Gen. Counsel, IEX, to Brent J. Fields, Sec’y, SEC at 6 (Nov. 23, 2016), <https://www.sec.gov/comments/10-222/10222-26.pdf> [hereinafter IEX—Nov. 23, 2015]; *see generally* Levine, *Still Controversial*, *supra* note 2 (discussing Comment letters submitted to the SEC that support approving IEX’s exchange application).

79. *See* IEX—Nov. 23, 2015, *supra* note 78, at 6.

80. *See id.* at 6-7.

New York City, New York.⁸¹ IEX points to third-party broker data to demonstrate that the intentional delay at IEX is almost equivalent to the delay that occurs when data is sent to and from the NYSE and significantly less of a delay than when data is sent to and from the Chicago Stock Exchange.⁸² The difference is those delays are not intentional.

Second, IEX and its proponents argue that technology has changed so drastically since Reg NMS was adopted that the principles behind the regulations, rather than a strict reading of Reg NMS's language, should be used as overall guidance when the SEC is making its decision.⁸³ This argument has been advanced by not only IEX, but also academic commenters on the proposal.⁸⁴

Section 11A of the Exchange Act requires the SEC to weigh a number of factors in this area, including: “(1) economically efficient execution of securities transactions[;] (2) fair competition among broker-dealers, among exchange markets, and between exchange markets and non-exchange markets; (3) price transparency; (4) best execution of investor orders; and (5) an opportunity, consistent with economic efficiency and best execution, for investor orders to meet without the participation of a dealer.”⁸⁵

Given these factors, it is arguable that the SEC should approve IEX's application to become a public stock exchange to encourage fair competition.⁸⁶ The principles behind Reg NMS may provide better guidance for the SEC in its decision-making process than the strict language of the law.⁸⁷ The SEC may find the principles behind Reg NMS particularly persuasive because the delays of similar or greater duration than IEX's intentional 350-microsecond delay already occur because of geographic distance.⁸⁸

81. *See id.* at 7.

82. *See id.* (referencing a bar graphic showing average venue round trip latencies in microseconds).

83. *See* Verret, *supra* note 1.

84. *See id.*; *see also* Levine, *Still Controversial*, *supra* note 2.

85. Verret, *supra* note 1 (citing SEC Division of Trading and Markets, *Memorandum on Rule 611 of Regulation NMS to the SEC Market Structure Advisory Committee* (Apr. 30, 2015), <http://www.sec.gov/spotlight/emsac/memo-rule-611-regulation-nms.pdf>).

86. *See* Levine, *Still Controversial*, *supra* note 2.

87. *See* Verret, *supra* note 1; Levine, *Still Controversial*, *supra* note 2; *accord* IEX—Nov. 23, 2015, *supra* note 78.

88. *See* Verret, *supra* note 1; Levine, *Still Controversial*, *supra* note 2; *accord* IEX—Nov. 23, 2015, *supra* note 78.

Moreover, each Reg NMS rule has an exemption that would permit the SEC to consider policy arguments as it makes its decision.⁸⁹ The exemption states:

The Commission, by order, may exempt from the provisions of this section, either unconditionally or on specified terms and conditions, any person, security, transaction, quotation, or order, or any class or classes of persons, securities, quotations, or orders, if the Commission determines that such exemption is necessary or appropriate in the public interest, and is consistent with the protection of investors.⁹⁰

B. *Fairness in the Market*

Another objection to IEX operating as a public stock exchange focuses on fairness.⁹¹ HFTs argue that subjecting only some outgoing orders to the 350-microsecond delay would be unfair to those who are subjected to the delay.⁹² As stated before, in IEX's original application there were two types of orders that were not subjected to the delay.⁹³ Now there is only one type—midpoint buy and sell orders resting on the exchange.⁹⁴ Although these orders are treated differently, they are arguably a different type of order.⁹⁵ Not subjecting these orders to the delay before they execute can be countered by the fact that the orders already went through the delay when they first entered the system.⁹⁶ Thus, it is not that these orders are allowed to completely bypass the delay, it is simply that they are a different type of order that is resting on the system and should not have to be subjected to a second delay when they do eventually execute.⁹⁷

The issue of fairness with outgoing buy orders to other exchanges would have created a more difficult issue for the SEC.⁹⁸ Outgoing buy orders would have passed directly through to other exchanges subject to no delay, while outgoing information about the sale on IEX to all other traders, including HFTs, would have to travel through the magic

89. See 17 C.F.R. § 242.611(d) (2005).

90. *Id.*

91. See, e.g., Levine, *Still Controversial*, *supra* note 2.

92. See *id.*

93. See *id.*

94. See *id.*; accord IEX—Feb. 29, 2016, *supra* note 12.

95. See IEX—Nov. 13, 2015, *supra* note 43, at 17.

96. See *id.*

97. See *id.*

98. As stated before, this is no longer an issue the SEC will need to consider because IEX amended its application on February 29, 2016, and will now subject all outgoing orders to the 350-microsecond delay imposed by passing through the magic shoebox. See IEX—Feb. 29, 2016, *supra* note 12; see also McCrank, *supra* note 76.

shoebox.⁹⁹ Opponents argued that “[t]his speed advantage would be insurmountable and give the IEX Router an unfair competitive advantage over other routing brokers and IEX participants.”¹⁰⁰ This is true because that is exactly what the system is designed to do.¹⁰¹

The question simply remains of whether or not it is fair for IEX to use its magic shoebox technology to prevent HFTs from using speed to make a profit.¹⁰² Perhaps it is fair for IEX to prevent electronic front-running because it is not fair for HFTs to use speed to make a profit.¹⁰³

IV. WHAT THE SEC SHOULD DO

The SEC should approve IEX’s application to become a registered public exchange. Any actual negative effects on the market are strictly hypothetical at this point.¹⁰⁴ With no evidence of actual negative market effects, the SEC should weigh its decision in favor of allowing competitiveness within the market.¹⁰⁵ Even if actual issues arise from IEX’s participation as a public exchange, the SEC can take corrective action after the fact.¹⁰⁶ Consequently, the SEC should observe the effects the exchange has on the market.¹⁰⁷

Additionally, IEX’s approval as a public exchange should not be delayed because of the language in Reg NMS.¹⁰⁸ Although a literal reading of the regulation may not permit an intentional delay, the arguments for why the SEC should not take a literal reading are quite strong.¹⁰⁹ The fact that similar and longer information delays already

99. See Levine, *Still Controversial*, supra note 2. As noted earlier, subjecting the outgoing information about the buy orders to other traders, but not buy orders to other exchanges, would work to prevent electronic front-running. See discussion supra Section II.B. HFTs would receive the information after the order had already went through and could not race ahead of the order. Levine, *Still Controversial*, supra note 2.

100. Nagel, supra note 10, at 6.

101. See Levine, *Still Controversial*, supra note 2; see also Matt Levine, *Chinese Markets and Saudi Listings*, BLOOMBERG VIEW: MONEY STUFF (Jan. 8, 2016, 8:39:44 AM), <https://www.bloomberglaw.com/s/news/8d0072382975bf66ca47a11c272193a7/document/O0MZA86KLVRB?highlight=levine+iex> [hereinafter Levine, *Chinese Markets*].

102. See Levine, *Chinese Markets*, supra note 101.

103. See Levine, *Still Controversial*, supra note 2.

104. See Verret, supra note 1.

105. See *id.*

106. See *id.*

107. See Letter from James J. Angel, Associate Professor of Fin., Georgetown Univ., to SEC at 4-5 (Dec. 5, 2015), <https://www.sec.gov/comments/10-222/10222-35.pdf> [hereinafter Angel]; see also Verret, supra note 1.

108. See *id.*; but see McCrank, supra note 76.

109. See Dave Michaels, *IEX ‘Speed Bump’ Seems to Comply with Rules, Finra CEO Says*, BLOOMBERG BUS. (Feb. 18, 2016, 4:00 AM) <http://www.bloomberg.com/news/articles/>

occur in the exchange system because of geographic distance¹¹⁰ provides evidence that the objection to the delay on the fact that it is intentional is more about preventing IEX from entering the market than it is about preventing actual issues from arising.

Moreover, the SEC should not delay the approval of IEX's application in order to first amend the language of Reg NMS.¹¹¹ Although updating the regulations to better reflect the stock exchange market as it exists today may be a good idea,¹¹² the time it would take to make those updates would likely be substantial. Again, in favor of keeping with the principles behind the regulation as opposed to either adhering to or amending its strict language, the SEC should not delay its approval.¹¹³

Adhering to the strict language of Reg NMS might be better justified if there were assured negative consequences that would result from permitting IEX to operate as a public exchange. However, concerns about the effect on the stock market are at this point completely hypothetical.¹¹⁴ IEX should be permitted to enter the stock market system because there is no way to know for certain the effects, especially given the fact that any negative outcomes can be dealt with by the SEC through enforcement after the fact.¹¹⁵

In the alternative, the SEC could permit IEX's approval on a trial basis.¹¹⁶ A phased rollout would allow the SEC to determine actual market effects on a small scale and could serve as an opportunity for the SEC to appease those who have legitimate concerns about potential market effects of the speed bump.¹¹⁷ With a proper plan in place, the SEC could monitor, observe, and make an informed decision about whether or

2016-02-1/iex-speed-bump-seems-to-comply-with-u-s-rules-finra-ceo-says; *see also* Levine, *Still Controversial*, *supra* note 2.

110. *See* IEX—Nov. 23, 2015, *supra* note 78, at 6.

111. *See* Michaels, *supra* note 109. Several opponents called for an amendment to Reg NMS before its approval. *See* McCrank, *supra* note 76; *see also* Levine, *Still Controversial*, *supra* note 2.

112. *See* McCrank, *supra* note 76.

113. *See* Verret, *supra* note 1; *but see* McCrank *supra* note 76.

114. *See* Verret, *supra* note 1. It is difficult to determine the actual effect IEX's speed-bump technology will have on the stock market before it actually enters the market as an exchange. *See* Angel, *supra* note 107, at 4. However, now that all outgoing information will be subject to the delay, there is arguably less concern that the technology would create unfairness in the marketplace. *See* Massa, *supra* note 7.

115. *See* Verret, *supra* note 1.

116. *See* Angel, *supra* note 107, at 4.

117. *See id.* at 5.

not to proceed based on actual market-impact data rather than based on hypotheticals.¹¹⁸

Finally, but possibly most importantly, the SEC should approve IEX's application to become a public exchange based on public interest. Regardless of the actual impact of high-speed trading on the U.S. securities market, a substantial portion of the public believes HFTs create unfairness in the marketplace.¹¹⁹ IEX's magic shoebox technology, at a minimum, has generated support from some investors based on its idea of leveling the playing field by slowing things down to create fairness in the stock exchange marketplace.¹²⁰ Letting IEX enter the marketplace, regardless of whether it has any actual effect on stopping HFTs' current practices, is the logical way to rehabilitate the public's negative perception of the marketplace.

V. CONCLUSION

As technology continues to change, it is possible the SEC will continue to be confronted with issues similar to what it is facing now.¹²¹ Reg NMS was only promulgated in 2005 and is already seen as an out-of-date regulation in light of the market as it exists today.¹²² Even if the SEC were to update its regulations before approving IEX as a public exchange, by the time the task is completed there could already be a new type of technology that would not fit under the new regulations. This possibility is why it is important for the SEC to give new exchanges that use technology a chance to compete in the marketplace even though they may not be permitted under the strict letter of the law. With appropriate implementation, like a phased-in approach to monitor market effects, and oversight, exchanges that use new technology have the potential to improve the securities market within the United States.

118. See *id.* (proposing a possible rollout sequence for IEX if the SEC approves its application to become an exchange).

119. Fox et al., *supra* note 5, at 266.

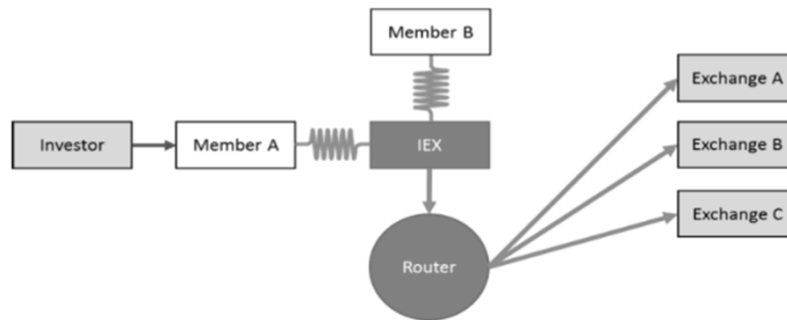
120. See Popper, *supra* note 10; see generally Levine, *Still Controversial*, *supra* note 2 (highlighting Comment letters submitted to the SEC that support the approval of IEX's exchange application).

121. See Fox et al., *supra* note 5, at 193, 199 (discussing how the stock market has totally transformed over the past twenty years).

122. See Verret, *supra* note 1.

APPENDIX

Visual diagram of how the IEX “speed-bump” delay would have worked on out-going buy orders to protect against electronic front-running:¹²³



123. IEX—Nov. 13, 2015, *supra* note 43.