Spoofing and Layering

Gideon Mark*

*Associate Professor of Business Law, University of Maryland Robert H. Smith School of Business; gmark@rhsmith.umd.edu. Professor Mark holds degrees from Brandeis University, Columbia University, Harvard University, New York University, and the University of California. Thanks to Colleen Baker, Laura Brookover, and Jeremy Kress for very helpful comments on prior drafts of this Article.

I. INTRODUCTION

This Article examines a broad range of issues associated with spoofing and layering in the futures and securities markets and proposes a set of recommendations to resolve them. Spoofing and layering are forms of market manipulation or fraud, whereby traders place orders or bids in a commodity or security on an exchange or other trading platform with no intent to execute, primarily to deceive other traders as to the true levels of supply or demand. While the terms are sometimes used interchangeably, layering is best understood as a specific form of spoofing, in which traders place orders at multiple price tiers, with no intent to execute.[1] Spoofing was expressly prohibited by an amendment of the Commodity Exchange Act in 2010 and such conduct is proscribed—albeit not expressly—by the federal securities laws. Spoofing has also been prosecuted as commodity, mail, and wire fraud by the Department of Justice. Regulatory and criminal anti-spoofing enforcement has sharply accelerated in the last few years, and that enforcement has spawned numerous novel unresolved issues which are addressed herein.[2]

II. BACKGROUND

This Article begins by examining the futures markets, the significance of spoofing and layering, the harm associated with such conduct, the connection between spoofing, layering, and high-frequency trading, and the essential differences between spoofing, layering, and other forms of trading—some of which are disruptive and proscribed under federal law and some of which are not.

1. *See* Clifford C. Histed & Gilbert A. Perales, *SEC Sends a Stern Reminder that it is Serious About Punishing 'Spoofing' and 'Layering' Schemes in the Securities Markets*, NAT'L L. REV. n.4 (Apr. 25, 2017), https://www.natlawreview.com/article/sec-sends-stern-reminder-it-serious-about-punishing-spoofing-and-layering-schemes ("The terms 'layering' and 'spoofing' are often used interchangeably to describe similar manipulative trading behavior—namely, offering to buy or sell a security or futures contract with the intent to cancel the order before it is executed. Layering, however, is a specific form of spoofing that involves placing multiple orders at different price levels, or 'layers.'"); *What is the Difference Between Layering and Spoofing?*, TRILLIUM SURVEYOR, https://www.trlm.com/knowledgebase/makes-spoofing-different-layering/ (last visited Sept. 15, 2019) ("Layering is a variant of spoofing . . . .").

2. *See* David I. Miller et al., *The U.S. Government's Charge Against 'Spoofing,'* 21 WESTLAW J. DERIVATIVES 1, 4 (2015), https://www.morganlewis.com/~/media/files/publication/outside%20publication/article/westlaw-derivaties-charge-against-spoofing-july2015.ashx [hereinafter *Charge Against Spoofing*] (observing that spoofing enforcement is a "novel, largely untested area of the law").

A. The Futures Markets

Spoofing and layering take place primarily, but not exclusively, in the futures markets. Futures are a major subset of the larger market for derivatives, which are financial products that derive their value from the change in value of underlying assets or the occurrence of external events. Derivatives played a central role in the 2008 financial crisis,[3] but they also play an essential role in economic growth, by pricing commercial risk and "transferring it in efficient ways."[4] Derivative prices reflect price discovery—"the aggregate opinions of market participants about the present and future values" of commodities.[5] Derivatives have become commonplace. Derivative instruments include futures, as well as swaps and options on commodities. The derivatives markets are governed by the Commodity Exchange Act (CEA),[6] which very broadly defines "commodities" to include "all services, rights, and interests . . . in which contracts for future delivery are presently or in the future dealt in."[7] In effect, a commodity is any product which is or may in the future be traded on a futures exchange.[8] The CEA thus governs commodity futures contracts, which are executory contracts for the purchase or "sale of a commodity executed at a specific point in time with delivery of the commodity postponed to a future date."[9] The current version of "[t]he CEA governs the trading of [such] contracts and grants to the Commodity Futures Trading Commission [(CFTC, Commission)] the authority . . . to implement the regulatory regime established therein."[10]

The CFTC has regulated commodity futures markets in the United States since 1974, when the Commodity Futures Trading Commission Act[11] was enacted to amend the CEA.[12] Subject to a few limited exceptions, futures contracts are within the exclusive jurisdiction of the Commission,[13] notwithstanding the continuing convergence between

3. Karen Freifeld, *Misconduct Rife in Derivatives-Ex-CFTC Enforcement Chief*, REUTERS (Mar. 24, 2017, 6:24 AM), https://www.reuters.com/article/us-cftc-enforcement-goelman-idUSKBN16V1D0?il=0.

4. J. Christopher Giancarlo, Acting Chairman, CFTC, CFTC: A New Direction Forward (Mar. 15, 2017), https://www.cftc.gov/PressRoom/SpeechesTestimony/opagiancarlo-20 [hereinafter Giancarlo, A New Direction].

5. CHARLES MILLS & KAREN DILDEI, THE NECESSITY OF PRICE ARTIFICIALITY IN MANIPULATION AND ATTEMPTED MANIPULATION CLAIMS, 37 FUTURES & DERIVATIVES L. REP. 1, 7 (2017), https://www.steptoe.com/images/content/1/3/v2/138636/FDLR-37-8-Art1-FINAL.pdf.

6. Commodity Exchange Act, Pub. L. No. 74-675, 49 Stat. 1491 (1936).

7. 7 U.S.C. § 1a(9) (2018).

8. *See* CFTC v. American Bd. of Trade, Inc., 803 F.2d 1242, 1248 (2d Cir. 1986) ("[A]nything other than onions could become a 'commodity' . . . simply by its futures being traded on some exchange.") (quoting Bd. of Trade v. SEC, 677 F.2d 1137, 1142 (7th Cir. 1982)). Both onions and motion picture box office receipts are currently excluded from the definition of a commodity. *See* 7 U.S.C. § 1a(9) (2018).

9. *In re* Amaranth Nat. Gas Commodity Litig., 730 F.3d 170, 173 (2d Cir. 2013) (quoting Strobl v. N.Y. Mercantile Exch., 768 F.2d 22, 24 (2d Cir. 1985)).

10. Troyer v. Nat'l Futures Ass'n, 290 F. Supp. 3d 874, 880 (N.D. Ind. 2018) (quoting Am. Agric. Movement, Inc. v. Bd. of Trade of City of Chi., 977 F.2d 1147, 1150 (7th Cir. 1982)).

11. Commodity Futures Trading Act of 1974, Pub. L. No. 93-463, 88 Stat. 1389 (1974).

12. *See History of the CFTC, CFTC History in the 1970s*, CFTC, https://www.cftc.gov/About/HistoryoftheCFTC/history_1970s.html (last visited Nov. 1, 2019).

13. *See* 7 U.S.C. § 2(a)(1)(A) (2018); Hunter v. F.E.R.C., 711 F.3d 155, 157 (D.C. Cir. 2013) ("Stated simply, Congress crafted CEA section 2(a)(1)(A) to give the CFTC exclusive jurisdiction over transactions conducted on futures markets like the NYMEX.").

the securities and derivatives markets.[14] The futures industry traces its origin to agricultural commodities trading in the 1860s, primarily in wheat, corn, and cotton, but it has become increasingly complex since the creation of the CFTC more than a century later.[15]

Congress enacted the CEA for the purpose of preventing, deterring, and redressing price manipulation of commodity futures and options contracts.[16] The statute had a generic anti-manipulation provision[17] and an anti-fraud provision,[18] both of which have been amended since enactment. Because conduct involving manipulation in a commodity futures market takes numerous forms, it was left undefined when the CEA was enacted.[19]

B. What Are Spoofing and Layering, and How Common is Such Conduct?

There is no universally accepted definition of the term, but some conduct is commonly recognized as spoofing.[20] A basic spoofing scheme involves a trader entering a large order on one side of the market that the trader intends to cancel prior to execution and contemporaneously entering one or more small orders on the other side that the trader intends to fill. The large order creates an illusion of market depth and generates a response from other market participants that together benefit the trader's small positions.[21] A response is generated because many participants base their market strategies on their perceptions of supply and demand at various price levels. These responses are often automated and virtually simultaneous, given the widespread use of trading algorithms.

Spoofing and layering are rarely isolated events. The schemes often extend for many years and include the placement of thousands or millions of spoof or layered orders.[22] In August 2019 a former J.P. Morgan Chase precious metals trader pleaded guilty to spoofing thousands of times during the period 2007 to 2016.[23] A 2018 CFTC

14. STAFFS OF THE SEC & CFTC, FINDINGS REGARDING THE MARKET EVENTS OF MAY 6, 2010 (2010), https://www.sec.gov/news/studies/2010/marketevents-report.pdf (noting continuing convergence) [hereinafter MARKET EVENTS FINDINGS].

15. *See History of the CFTC, US Futures Trading and Regulation Before the Creation of the CFTC*, CFTC, https://www.cftc.gov/About/HistoryoftheCFTC/history_precftc.html (last visited Nov. 1, 2019).

16. *See* Leist v. Simplot, 638 F.2d 283, 304 (2d Cir. 1980), *aff'd sub nom.* Merrill Lynch, Pierce, Fenner & Smith, Inc. v. Curran, 456 U.S. 353 (1982).

17. *See* 7 U.S.C. § 13(a) (2018) (prohibiting manipulation).

18. *See* 7 U.S.C. § 6(b) (2018) (prohibiting fraud).

19. Bernard Persky & Gregory Asciolla, *Analyzing Proper Pleading Standard for Commodity Manipulation Claims*, N.Y. L.J. (Feb. 10, 2009), https://info.labaton.com/hubfs/Analyzing-Proper-Pleading-Standards.pdf (reprinted with permission by Labaton Sucharow).

20. *Id.*

21. Zach Brez et al., *Recent Developments in CFTC Enforcement*, Bloomberg BNA, 48 SEC. REG. & L. REP. 2189 (Nov. 21, 2016).

22. *See, e.g.*, Plea Agreement at ¶ 7, United States v. Zhao, Case No. 18 CR 24 (N.D. Ill. Dec. 26, 2018) (stating that defendant's spoofing scheme extended for almost four years and involved thousands of orders); Press Release, U.S. Dep't of Justice, Three Traders Charged, and Two Agree to Plead Guilty, in Connection with over $60 Million Commodities Fraud and Spoofing Conspiracy (Oct. 12, 2018), https://www.justice.gov/opa/pr/three-traders-charged-and-two-agree-plead-guilty-connection-over-60-million-commodities-fraud (noting that defendants' alleged spoofing scheme in operation from 2012-14 on Chicago Mercantile Exchange and Chicago Board of Trade involved thousands of spoof orders).

23. Information, United States v. Trunz, Case No. 19 CR 375 (E.D.N.Y. Aug. 20, 2019); Jody Godoy, *2nd Ex-JP Morgan Metals Trader Cops to Spoofing*, LAW360 (Aug. 20, 2019, 5:55 PM),

enforcement action concerned more than 36,000 spoof orders[24] and an earlier enforcement action by the Securities and Exchange Commission (SEC) involved more than 325,000 layered transactions that corresponded to the entry of more than eight million layered orders.[25]

The results can be major losses for spoofed traders. In one case in which co-defendants pled guilty in October 2018, market participants who traded futures contracts in the spoofed markets during the period that prices were distorted incurred losses in excess of $60 million, according to the DOJ's calculations.[26] In a separate spoofing case, which Merrill Lynch Commodities, Inc. settled in June 2019 with the CFTC and Department of Justice (DOJ) for a combined $36.5 million, the settlement included both disgorgement and restitution.[27] The non-prosecution agreement (NPA) Merrill Lynch entered into with the DOJ identified negative effects of the spoofing scheme that included exposing market participants to a risk of loss, unwinding precious metals futures positions at a loss, investigative and litigation costs and expenses, and reputational harm.[28]

Layering is a more sophisticated version of spoofing. In a common layering scheme, multiple limit orders[29] are entered on one side of the market at various price points, with

---

https://www.law360.com/articles/1190644/2nd-ex-jp-morgan-metals-trader-cops-to-spoofing.

24. Complaint at 13, CFTC v. Mohan, Case No. 4:18-cv-00260 (S.D. Tex. Jan. 28, 2018).

25. In the Matter of Hold Bros. On-Line Inv. Servs., LLC, SEC File No. 3-15046, SEC Release Nos. 67924, 30213, at 6 (Sept. 25, 2012). *See also* SEC v. Lek Sec. Corp., 17cv1789, 2019 WL 1375656, at *1 (S.D.N.Y. Mar. 26, 2019) (describing defendants' scheme which allegedly involved "hundreds of thousands of instances of layering").

26. *See* Press Release, U.S. Dep't of Justice, Three Traders Charged, and Two Agree to Plead Guilty, in Connection with Over $60 Million Commodities Fraud and Spoofing Conspiracy (Oct. 12, 2018), https://www.justice.gov/opa/pr/three-traders-charged-and-two-agree-plead-guilty-connection-over-60-million-commodities-fraud. Notwithstanding the DOJ's calculations and guilty pleas by two of the three traders involved in the scheme, there appears to be no commonly accepted model for quantifying spoofing losses. The absence of a model has not deterred the DOJ, which asserted that the losses in another spoofing case—which produced indictments in September 2019—reached tens of millions of dollars. *See* Jody Godoy, *3 JPMorgan Traders Accused of 8-Year Spoofing Racket*, LAW360 (Sept. 16, 2019, 8:34 AM), https://www.law360.com/securities/articles/1198568/3-jpmorgan-traders-accused-of-8-year-spoofing-racket?nl_pk=8b240a19-db95-4ea6-91e0-b797c8600de2&utm_source=newsletter&utm_medium=email&utm_campaign=securities.

27. Alison Noon, *Merrill Lynch Admits Spoofing, Settles U.S. Probes for $36.5M*, LAW360 (June 25, 2019, 10:24 PM), https://www.law360.com/articles/1172897/merrill-lynch-admits-spoofing-settles-us-probes-for-36-5m. In an even more recent spoofing case, in November 2019 the CFTC and DOJ settled criminal and civil charges against Tower Research Capital LLC, a proprietary trading firm, for a record $67.4 million. According to the CFTC, the spoofing scheme caused $32,593,849 in market losses and Tower agreed to pay that much in restitution, together with $10,500,000 in disgorgement and a $24,400,000 civil monetary penalty. This was the largest total monetary relief ever ordered in a spoofing case, to that date. Press Release, U.S. Commodity Futures Trading Comm'n, CFTC Orders Proprietary Trading Firm to Pay Record $67.4 Million for Engaging in Manipulative and Deceptive Scheme and Spoofing (Nov. 7, 2019), https://www.cftc.gov/PressRoom/PressReleases/8074-19.

28. Letter from U.S. Dep't of Justice to Reginald J. Brown, at 8 (June 25, 2019), https://www.law360.com/articles/1172897/attachments/0.

29. In a limit order the customer specifies a minimum sale price or maximum purchase price, whereas a customer expects a market order will be filled at the market price. U.S. Commodity Futures Trading Comm'n, *Limit Order*, CFTC GLOSSARY, https://www.cftc.gov/ConsumerProtection/EducationCenter/CFTCGlossary/index.htm#L (last visited Sept. 15, 2019). Limit orders comprise a significant percentage of all orders entered in securities and futures markets. *See*

no intent to execute. Again, the usual objective is to create the appearance of a change in the levels of supply and demand, thereby artificially moving the price of the commodity or security. An order is then executed on the opposite side of the market at the artificially created price, and the multiple prior orders are cancelled.[30]

Spoofing and layering rest on the fundamental microeconomic principle that increased supply drives prices down and increased demand drives prices up,[31] but the trading techniques have evolved and become more complex in recent years. More refined versions include spoofing with vacuuming, collapsing of layers, flipping, and the spread squeeze.[32] Still further sophistication is provided by cross-market schemes that play out across highly correlated markets.[33] Increased complexity has magnified the detection problem.

The trader's motivation in a spoofing or layering scheme is usually, but not always, to manipulate the market for profit. A secondary motivation is to test the market's reaction to certain types of orders. A recent example of the latter occurred in September 2018 when Mizuho Bank agreed to pay a civil penalty of $250,000 to resolve allegations that it engaged in multiple acts of spoofing on the Chicago Mercantile Exchange (CME)—the world's largest futures exchange—and Chicago Board of Trade (CBOT).[34] The CFTC alleged that Mizuho's trader placed spoof orders to test market reaction to his trading in anticipation of having to hedge Mizuho's swaps positions with futures at a later date.[35] The CFTC did not allege that the trader executed or even placed genuine orders that benefitted from the spoof large orders. In all of the CFTC's prior spoofing cases it had alleged that the misconduct involved both spoof and genuine orders.[36] But according

---

Michael Morelli, *Regulating Secondary Markets in the High Frequency Age: A Principled and Coordinated Approach*, 6 MICH. BUS. & ENTREPRENEURIAL L. REV. 79, 91 (2016) (noting that "[m]ost markets are set up as electronic limit order books").

30. *See* Self-Regulatory Organizations et al., Exchange Act Release No. 79,361, 81 Fed. Reg. 85,650, at 5 n.11 (Nov. 21, 2016), https://www.sec.gov/rules/sro/finra/2016/34-79361.pdf.

31. *See* Irena Asmundson, *Supply and Demand: Why Markets Tick*, INT'L MONETARY FUND FIN. & DEV., https://www.imf.org/external/pubs/ft/fandd/basics/suppdem.htm (last updated Dec. 18, 2018) (explaining supply and demand curves).

32. *See Spoofing Similarity Model*, NEURENSIC, INC. (Sept. 13, 2016), http://neurensic.com/spoofing-similarity-model/ (describing these advanced techniques).

33. *See, e.g.*, Reenat v. Sinay, *Ukrainian Trading Firm Says SEC Can't Win Lek 'Layering' Suit*, LAW360 (Sept. 16, 2019, 4:26 PM), https://www.law360.com/articles/1199090/ukrainian-trading-firm-says-sec-can-t-win-lek-layering-suit (describing alleged combination of layering and cross-market manipulation in suit commenced by Securities and Exchange Commission). The SEC was victorious in a jury trial in that case in November 2019. Press Release, U.S. Sec. and Exch. Comm'n, SEC Wins Jury Trial in Layering, Manipulative Trading Case (Nov. 12, 2019), https://www.sec.gov/news/press-release/2019-236.

34. Press Release, U.S. Commodity Futures Trading Comm'n, CFTC Finds Mizuho Bank, Ltd. Engaged in Spoofing of Treasury Futures and Eurodollar Futures, (Sept. 21, 2018), https://www.cftc.gov/PressRoom/PressReleases/7800-18.

35. *See In re* Mizuho Bank Ltd., CFTC No. 18-38 (Sept. 21, 2018), https://www.cftc.gov/sites/default/files/2018-09/enfmizuhobankorder092118.pdf (alleging placement of spoof orders to test market reaction to trading). *See also* Press Release, U.S. Commodity Futures Trading Comm'n, CFTC Orders Mitsubishi Corporation RtM Japan Ltd. to Pay $500,000 for Spoofing (Nov. 7, 2019), https://www.cftc.gov/PressRoom/PressReleases/8075-19 (announcing that CFTC has imposed $500,000 civil penalty in spoofing and layering case in which trader engaged in proscribed conduct "in order to test how the market would react").

36. Katherine Cooper & Elizabeth Lan Davis, *2 New Cases Showcase CFTC Spoofing Theories*, LAW360 (Sept. 25, 2018, 3:31 PM), https://www.law360.com/articles/1086185/2-new-cases-showcase-cftc-spoofing-

to the CFTC, a trader's conduct is unlawful whether his motivation is to manipulate the market or to gauge the market's reaction.[37] That position has not yet been tested in court, but because the CEA is silent concerning any requisite motive for proscribed spoofing the CFTC's position should be upheld in the event of litigation.

Spoofing may have been occurring at least since the advent of electronic trading in the late 1960s in the financial markets,[38] and today virtually all trading in both equity and futures markets is done using computers.[39] Indeed, many exchanges have closed their trading floors. The era of electronic trading has created an environment in which spoofing and layering can flourish. Former CFTC Director of Enforcement Aitan Goelman has stated that spoofing is widespread,[40] and former CFTC Commissioner Timothy Massad often identified spoofing in public remarks as a particular area of enforcement focus for the Commission during his tenure from 2014-17.[41] In 2017, the CFTC shifted its Market Surveillance Unit—which includes economists, statisticians, and quantitative analysts—from the Division of Market Oversight to the Division of Enforcement in order to more effectively identify and prosecute spoofing and other forms of manipulation.[42] The switch reflects the data-centric approach increasingly pursued by the CFTC. In turn, the new approach reflects the fact that modern markets are increasingly data-driven and data-sensitive.[43]

In January 2018 the CFTC announced the establishment of a Spoofing Task Force.[44] The Task Force—a coordinated effort across the CFTC's Division of Enforcement with members from the Commission's offices in Chicago, Kansas City, New York, and Washington, D.C.—was designed, according to the CFTC, "to root out spoofing from our

---

theories.

37. *See* Press Release*, supra* note 34 (setting forth terms of order).

38. KENNETH A. MCCRACKEN & CHRISTINE SCHLEPPEGRELL, THE CFTC'S MANIPULATIVE AND DISRUPTIVE TRADING AUTHORITY IN AN ALGORITHMIC WORLD, 35 FUTURES & DERIVATIVES L. REP. (2015), https://www.dechert.com/knowledge/publication/2015/4/the-cftc-s-manipulative-and-disruptive-trading-authority-in-an-a.html.

39. Robert W. Cook, President and CEO, FINRA, Equity Market Surveillance Today and the Path Ahead (Sept. 20, 2017), https://www.finra.org/media-center/speeches-testimony/equity-market-surveillance-today-and-path-ahead (referring to equity markets); Brez, *supra* note 21 (referring to markets overseen by CFTC).

40. Erika Kelton, *Alarming News About Derivatives Markets from Former CFTC Enforcement Chief*, FORBES (Mar. 29, 2017, 4:54 PM), https://www.forbes.com/sites/erikakelton/2017/03/29/alarming-news-about-derivatives-markets-from-former-cftc-enforcement-chief/#5939b6796332. *See also* John I. Sanders, Comment, *Spoofing: A Proposal for Normalizing Divergent Securities and Commodities Futures Regimes*, 51 WAKE FOREST L. REV. 517, 519 (2016) (stating that spoofing "appears to be a widespread practice"). The absence of reliable data concerning the extent of spoofing and layering reflects the general absence of such data concerning market manipulation. *See* Merritt B. Fox et al., *Stock Market Manipulation and its Regulation*, 35 YALE J. ON REG. 67, 77 (2018) [hereinafter *Stock Market Manipulation*] ("The fact is that we know relatively little about the extent of manipulation in the equities markets.").

41. *See, e.g.*, Timothy G. Massad, Commissioner, CFTC, Remarks before the CME Global Financial Leadership Conference (Nov. 14, 2016), https://www.cftc.gov/PressRoom/SpeechesTestimony/opamassad-51 ("We have increased our enforcement efforts with respect to new forms of improper behavior like spoofing.").

42. Giancarlo, A New Direction, *supra* note 4.

43. Tom C.W. Lin, *The New Market Manipulation*, 66 EMORY L.J. 1253, 1297 (2017).

44. James McDonald, Director of Enforcement, CFTC, Statement of CFTC Director of Enforcement James McDonald (Jan. 29, 2018), https://www.cftc.gov/PressRoom/SpeechesTestimony/mcdonaldstatement012918 [hereinafter McDonald Statement].

markets."[45] That same month the CFTC announced the settlement of spoofing enforcement actions involving Deutsche Bank, UBS, and HSBC (with fines ranging up to $30 million) and the filing of civil complaints alleging spoofing and manipulation against six individuals and one company in coordination with the DOJ and the Federal Bureau of Investigation.[46] The DOJ brought criminal charges against the same individuals, plus two others.[47] This constituted the largest coordinated enforcement action with criminal authorities in the history of the CFTC.[48] The prosecutions also were significant for the DOJ, which characterized them as the largest futures market criminal enforcement action in its history.[49] Subsequently, in September 2018, one analysis concluded that the CFTC's "campaign against spoofing is continuing and unabated."[50] By the close of the fiscal year, on September 30, 2018, the CFTC's Division of Enforcement had brought more actions involving spoofing and manipulation than in any prior year.[51] From 2009 to 2017 the CFTC averaged six such cases per year and in 2018 it filed 26 cases.[52] More recently, in August 2019 one review concluded that spoofing remains a top enforcement priority for the DOJ and CFTC.[53]

C. Are Spoofing and Layering Harmful?

There is general, but not universal, agreement that spoofing and layering are harmful and should be proscribed. The DOJ has noted that spoofing "poses significant risk of eroding confidence in U.S. markets."[54] Goelman has stated that "protecting the integrity

---

45. *Id.*

46. J. Christopher Giancarlo, Chairman, CFTC, Testimony before the Senate Comm. On Appropriations Subcomm. on Financial Services and General Government (June 5, 2018), https://www.cftc.gov/PressRoom/SpeechesTestimony/opagiancarlo47.

47. *Id.*

48. *Id.*

49. *Id.*; *see also* James G. Lundy & Antonio M. Pozos, *The CFTC and DOJ Crack Down Harder on Spoofing & Supervision*, SEC. L. PERSP. (Feb. 6, 2018), http://securitieslawperspectives.com/cftc-doj-crack-harder-spoofing-supervision/ (noting that spoofing has become an area of focus for Main Justice and for the DOJ's Criminal Fraud Section in particular).

50. Cooper & Davis, *supra* note 36. *See also* Jody Godoy & Jon Hill, *Feds' Spoofing Case Against JPMorgan Traders Turns Heads*, LAW360 (Sept. 17, 2019, 9:17 PM), https://www.law360.com/securities/articles/1199949/feds-spoofing-case-against-jpmorgan-traders-turns-heads?nl_pk=8b240a19-db95-4ea6-91e0-b797c8600de2&utm_source=newsletter&utm_medium=email&utm_campaign=securities (noting upward trend of both criminal and civil spoofing enforcement during last few years).

51. James M. McDonald, Director of Enforcement, CFTC, Speech Regarding Enforcement Trends at the CFTC at NYU School of Law: Program on Corporate Compliance & Enforcement (Nov. 14, 2018), https://www.cftc.gov/PressRoom/SpeechesTestimony/opamcdonald1.

52. *Id.* Of the 26 enforcement actions involving manipulation that were commenced by the CFTC in 2018, 15 involved spoofing. WILLIAM J. STELLMACH ET AL., TO SPOOF OR NOT TO SPOOF: THE DOJ ANSWERS THE QUESTION, 39 FUTURES & DERIVATIVES L. REP. 2 (Jan. 2019), https://www.willkie.com/~/media/Files/Publications/2019/01/To_Spoof_or_Not_To_Spoof.pdf.

53. *See* Andrew Bauer & Sina Mansouri, *Update: Criminal and Regulatory Enforcement of Market Manipulation Spike*, ARNOLD & PORTER (Aug. 16, 2019), https://www.arnoldporter.com/en/perspectives/publications/2019/08/update-criminal-and-regulatory-enforcement (noting that uptick in spoofing cases "has remained constant over the last several years").

54. Press Release, U.S. Dep't of Justice, Eight Individuals Charged with Deceptive Trading Practices Executed on U.S. Commodities Markets (Jan. 29, 2018), https://www.justice.gov/opa/pr/eight-individuals-charged-deceptive-trading-practices-executed-us-commodities-markets.

and stability of the U.S. futures markets is critical to ensuring a properly functioning financial system. Aggressive prosecution of spoofing is an important part of that mission."[55] Market integrity is infrequently defined,[56] but it is a core objective for securities and commodities regulators. The CFTC's budget request for fiscal year 2020 identified preservation of market integrity and protection of customers from harm as the Commission's mandate[57] and this is a common refrain.[58] One key aspect of market integrity is freedom from manipulation. Price and quantity are major sources of market information, fictitious bids and offers send false signals to other market participants, and such false signaling is manipulative.[59] Accordingly, the prosecution of spoofing enhances market integrity, by preventing, deterring, and redressing manipulative conduct.[60]

Market stability—the other item noted by Goelman—is also vital for regulators, because instability discourages trading by legitimate market participants.[61] Spoofing has caused instability,[62] in both United States and foreign markets. There is a general consensus that spoofing directly contributed to the May 6, 2010 flash crash.[63] That

---

55. Press Release, U.S. Commodity Futures Trading Comm'n, CFTC Charges United Arab Emirates Residents Heet Khara and Nasim Salim with Spoofing in the Gold and Silver Futures Markets (May 5, 2015), https://www.cftc.gov/PressRoom/PressReleases/pr7171-15. *Accord* Press Release, U.S. Commodity Futures Trading Comm'n, CFTC Orders Two Trading Firms, Bank to Pay a Total of $3 Million for Spoofing (Oct. 1, 2019), https://www.cftc.gov/PressRoom/PressReleases/8031-19 ("[T]he CFTC is committed to preserving the integrity of our markets—like the financial and precious metals futures markets at issue here—and to rooting out unlawful practices like spoofing . . . .").

56. Janet Austin, *What Exactly is Market Integrity? An Analysis of One of the Core Objective of Securities Regulation*, 8 WM. & MARY BUS. L. REV. 215, 231 (2017) ("Within the finance discipline, market integrity is often discussed but not often defined. When it is defined it tends to be defined relatively narrowly, as a market where information is equal or a market free from insider trading and market manipulation.").

57. *See* U.S. Commodity Futures Trading Comm'n, Fiscal Year 2020 President's Budget, at 10 (Mar. 2019), https://www.cftc.gov/sites/default/files/2019-03/cftcbudget2020.pdf (setting preservation of market integrity and protection of customers from harm as Commission's mandate).

58. *See* U.S. Commodity Futures Trading Comm'n, Budget Request Fiscal Year 2018, at 1 (May 2017), https://www.cftc.gov/sites/default/files/reports/presbudget/2018/index.html [hereinafter 2018 Budget Request] (echoing preservation of market integrity as an important function). *See also* Austin, *supra* note 56, at 219 ("[G]overnments, securities regulators, and even the G20 have adopted market integrity as a core objective for securities regulation.").

59. Paul Peterson, *Still More on 'Who's Spoofing Whom?*,*'* 6 FARMDOCDAILY 2 (Jan. 8, 2016), https://ageconsearch.umn.edu/bitstream/232194/2/fdd010816.pdf. *See also* Press Release, U.S. Dep't of Justice, Acting Assistant Attorney General John P. Cronan Announces Futures Markets Spoofing Takedown (Jan. 29, 2018), https://www.justice.gov/opa/speech/acting-assistant-attorney-general-john-p-cronan-announces-futures-markets-spoofing ("Spoofed orders alter the appearance of supply and demand, and manipulate otherwise efficient markets.").

60. *See* Rostin Behnam, Commissioner, CFTC, Remarks before Energy Risk USA, Houston, Texas (May 15, 2018), https://www.cftc.gov/PressRoom/SpeechesTestimony/opabehnam6 [hereinafter Behnam, Remarks] ("Spoofing introduces false information into the market, undermining market integrity and harming those who play by the rules and use the markets to hedge their risks.").

61. Press Release, U.S. Commodity Futures Trading Comm'n, CFTC Charges Chicago Trader Igor B. Oystacher and His Proprietary Trading Company, 3 Red Trading LLC, with Spoofing and Employment of a Manipulative and Deceptive Device While Trading E-Mini S&P 500, Cooper, Crude Oil, Natural Gas, and VIX Futures Contracts (Oct. 19, 2015), https://www.cftc.gov/PressRoom/PressReleases/pr7264-15.

62. *See* Deniz Aktas, *Spoofing*, 33 REV. BANKING & FIN. L. 89, 92 (2013) ("The ultimate outcome of spoofing is increased market instability.").

63. *See, e.g.*, CFTC v. Nav Sarao Futures Ltd. PLC, Case No. 15-cv-3398, 2016 WL 8257513, at *8–9 (N.D. Ill. Nov. 14, 2016) (linking defendants' spoofing to flash crash); Timothy G. Massad, Chairman, CFTC, Testimony before the U.S. Senate Comm. on Agriculture, Nutrition & Forestry (May 14, 2015),

afternoon, the Dow Jones Industrial Average plunged 998.5 points (roughly six percent) in a few minutes,[64] thereby erasing nearly $1 trillion in value from U.S. stocks. This was the largest one-hour decline in the more than century-long history of the Dow Jones.[65] By the end of the day on May 6 major indices in both futures and securities markets mostly recovered, to close at losses of about three percent from the prior day,[66] but the crash exacted a huge toll on investor confidence. Similarly, in 2015 Chinese officials believe they detected 24 instances of spoofing as shares on the Shanghai and Shenzhen stock exchanges plunged.[67]

Flash crashes may be uncommon but flash events or mini-flash crashes are not. An analysis conducted by the CFTC in 2015 used a somewhat arbitrary definition of flash events as episodes in which the price of a contract moved at least 200 basis points within a trading hour but returned to within 75 basis points of the original or starting price within the same hour. The CFTC found, *inter alia*, that corn, the largest grain futures market, averaged more than five such events per year over the five years preceding the study.[68] In addition, in 2015 there were 35 intraday flash events just for WTI crude oil futures.[69] A separate SEC investigation found that Merrill Lynch caused at least 15 mini-flash crashes from late-2012 to mid-2014.[70]

Such instability discourages trading, which reduces market liquidity. The extensive spoofing scheme of high-frequency trader Michael Coscia—carried out hundreds of times a day in 2011[71]—resulted in at least one significant participant withdrawing from the marketplace.[72] More generally, CFTC Director of Enforcement James McDonald observed in 2018 that "[s]poofing drives traders away from our markets, reducing the liquidity needed for these markets to flourish."[73]

---

https://www.cftc.gov/PressRoom/SpeechesTestimony/opamassad-22 [hereinafter Massad, 2015 Testimony] (observing that Sarao's spoofing "contributed to market conditions that led to the flash crash of 2010").

64. Graham Bowley, *U.S. Markets Plunge, Then Stage a Rebound*, N.Y. TIMES (May 6, 2010), https://www.nytimes.com/2010/05/07/business/07markets.html.

65. Alexander Abedine, Note, *The Symbiosis of High Frequency Traders and Stock Exchanges: A Macro Perspective*, 14 N.Y.U. J.L. & BUS. 595, 633 (2018).

66. MARKET EVENTS FINDINGS, *supra* note 14, at 1.

67. Matthew Leising et al., *How to Catch a Spoofer*, BLOOMBERG (Sept. 4, 2015), https://www.bloomberg.com/graphics/2015-spoofing/. Stocks declined 8.5% in one day, the largest single-day drop in Shanghai's SSE Composite Index in eight years. *The Causes and Consequences of China's Market Crash*, THE ECONOMIST (Aug. 24, 2015), https://www.economist.com/news/2015/08/24/the-causes-and-consequences-of-chinas-market-crash.

68. *See* Timothy Massad, Chairman, CFTC, Remarks before the Conference on the Evolving Structure of the U.S. Treasury Market (Oct. 21, 2015), https://www.cftc.gov/PressRoom/SpeechesTestimony/opamassad-30 [hereinafter Massad, 2015 Remarks].

69. *Id.*

70. *See* Press Release, U.S. Sec. & Exch. Comm'n, Merrill Lynch Charged with Trading Controls Failures that Led to Mini-Flash Crashes (Sept. 26, 2016), https://www.sec.gov/news/pressrelease/2016-192.html (stating that Merrill Lynch caused market disruptions on at least 15 occasions). *See also* JERRY W. MARKHAM, LAW ENFORCEMENT AND THE HISTORY OF FINANCIAL MARKET MANIPULATION 320 (2014) (observing that minicrashes have become common on electronic trading platforms).

71. *See* United States v. Coscia, 866 F.3d 782, 789 (7th Cir. 2017) (recapping trial testimony that Coscia placed 24,814 large orders between August and October 2011, but only traded on 0.5% of those orders).

72. *See* Alex Lincoln-Antoniou & Mauro Wolfe, *HFT Spoof that Wasn't Funny*, COMPLIANCE MONITOR 2 (Sept. 2013), https://www.duanemorris.com/articles/static/wolfe_compliancemonitor_0913.pdf (stating that at least one significant participant withdrew from the market).

73. McDonald Statement, *supra* note 44.

The government's stance on the harm stemming from spoofing and layering has been disputed. One perspective is that the impact of spoofing is confined because spoofing victims tend to be experienced high-frequency traders who quickly realize they have been victimized and take prompt action to mitigate their damages.[74] High-frequency trading (HFT) constitutes a subset of algorithmic trading[75]—which itself involves the use of increasingly sophisticated programmed electronic trading instructions—and is most accurately categorized as a methodology or technique, rather than as a discrete strategy. No universal or authoritative definition of HFT exists, and often the strategy is defined in terms of its characteristics and attributes.[76] High-frequency traders utilize quantitative and algorithmic methodologies to maximize the speed of their market access and trading strategies.[77] Traders may execute hundreds of trades in the space of milliseconds (1/1 thousandth of a second) or microseconds (1/1 millionth of a second),[78] and they make money by arbitraging rapid differences in prices rather than by holding their positions for extended periods of time.[79] HFT differs from the remainder of the broader category of algorithmic trading in terms of this hyper-speed/ultra-low latency and high volume.[80] In part, the speed of HFT reflects the market reality that futures prices often change significantly in one second or less.

Spoofing has been described as bait for HFTs[81] and the bait is often snatched. In 2015 the DOJ indicted high-frequency London-based trader Navinder Singh Sarao, who spoofed on the CME, for his role in causing the 2010 flash crash. Sarao was arrested in London, unsuccessfully contested extradition, pled guilty to spoofing charges in November 2016,[82] and that same month settled a related civil action commenced by the

---

74. *See, e.g.*, Peter J. Henning, *The Government's New Strategy to Crack Down on 'Spoofing,'* N.Y. TIMES (Sept. 4, 2018), https://www.nytimes.com/2018/09/04/business/dealbook/government-strategy-crack-down-on-spoofing.html ("The futures market for precious metals is populated by sophisticated traders who understand that others are trying to game the system to generate profits."); JAMES A. OVERDAHL & KWON Y. PARK, THE EXERCISE OF ANTI-SPOOFING AUTHORITY IN U.S. FUTURES MARKETS: POLICY AND COMPLIANCE CONSEQUENCES 9 (May 2016), http://deltastrategygroup.com/wp-content/uploads/2016/07/FDLR-Article-Published-1.pdf (citing Craig Pirrong, Professor of Finance, University of Houston).

75. United States v. Coscia, 866 F.3d 782, 786 n.4 (7th Cir. 2017).

76. Lazaro I. Vazquez, *High Frequency Trading: Is Regulation the Answer?*, 17 WAKE FOREST J. BUS. & INTELL. PROP. L. 151, 155 (2017) ("Together, the SEC and CFTC have refused to provide a precise definition of HFT. Both agencies define HFT by a subset of characteristics and attributes."); Orlando Cosme, Jr., Comment, *Regulating High-Frequency Trading: The Case for Individual Criminal Liability*, 109 J. CRIM. L. & CRIMINOLOGY 365, 377 (2019).

77. MARKET EVENTS FINDINGS, *supra* note 14, at 45.

78. Kristin N. Johnson, *Regulating Innovation: High Frequency Trading in Dark Pools*, 42 J. CORP. L. 833, 857 (2017).

79. *See* City of Providence v. BATS Glob. Mkts., Inc., 878 F.3d 36, 41 (2d Cir. 2017) (explaining HFT).

80. Gaia Balp & Giovanni Strampelli, *Preserving Capital Markets Efficiency in the High-Frequency Trading Era*, 2018 U. ILL. J.L. TECH. & POL'Y 349, 354. Latency refers to the elapsed time between placement of a limit or market order on an electronic trading system and execution of that order.

81. Roy Strom, *To Catch a Spoofer*, CHICAGO LAWYER (Apr. 1, 2016), https://www.chicagolawyermagazine.com/elements/pages/print.aspx?printpath=/Archives/2016/04/spoofing-April16&classname=tera.gn3article.

82. *See* Press Release, U.S. Dep't of Justice, Futures Trader Pleads Guilty to Illegally Manipulating the Futures Market in Connection with 2010 "Flash Crash" (Nov. 9, 2016), https://www.justice.gov/opa/pr/futures-trader-pleads-guilty-illegally-manipulating-futures-market-connection-2010-flash (setting forth terms of guilty plea); Jeffry M. Henderson, *Significant Developments in Spoofing Cases:* Coscia, 3Red, *and* Sarao, GREENBERG TRAURIG (Aug. 10, 2016), https://www.gtlaw.com/en/insights/2016/8/significant-developments-

CFTC.[83] But as noted by one critic, "Sarao's 'dupes' were other 'flash boys'. . . ."[84] More generally, a 2017 report by Nasdaq concluded that "[g]iven the rapid nature of the activity, in highly liquid markets, often the 'victim' of spoofing is an [automated trading system]."[85] This may be true, but spoofing and layering still impose substantial costs, in part in the form of expense for proprietary trading firms which create their own software to detect spoofing or purchase third-party software for the same purpose.[86]

A more sophisticated version of the argument that spoofing is not harmful is that the activity should be allowed as an antidote to the specific HFT order-anticipation strategy of front-running. HFT front-runners use their access to proprietary data feeds to profit by gleaning the intentions of legitimate traders and jumping the queue in front of their orders. This information asymmetry harms the non-front-running market participants by inducing them to buy or sell at less favorable prices.[87] Front-running has increased in the HFT era.[88] While it is often profitable against traditional orders, when a front-running HFT algorithm jumps in front of a spoof order, the spoofed trader may lose money. In this sense, spoofing acts as a critical check on destabilizing front-running, without harming legitimate traders. One observer noted: "[i]f front-running is allowed to exist, spoofing is its best remedy."[89]

The foregoing analysis is flawed. First, traditional front-running, which refers to trading based on material, non-public advance knowledge of block transactions (generally, 10,000 shares or more of stock),[90] already is banned by the SEC and Financial Industry Regulatory Authority (FINRA).[91] Second, a 2016 study of nine months of quote

---

in-spoofing-cases-coscia-3red-and-sarao.

83. *See* Anne M. Termine, *"Flash Crash" Derivatives Trader Settles Spoofing Case*, COVINGTON & BURLING LLP: FIN. SERVS. (Nov. 24, 2016), https://www.covfinancialservices.com/2016/11/flash-crash-derivatives-trader-settles-spoofing-case/ (reporting settlement of CFTC civil spoofing enforcement action against Sarao).

84. *'Spoofing' Almost Crashed the Stock Market, but is it Fraud?*, BROWN RUDNICK (Apr. 28, 2015), http://www.brownrudnick.com/spoofing-almost-crashed-the-stock-market-but-is-it-fraud/. *See also* Matt Levine, *Prosecutors Catch a Spoofing Panther*, BLOOMBERG OPINION (Oct. 2, 2014, 5:15 PM), https://www.bloomberg.com/opinion/articles/2014-10-02/prosecutors-catch-a-spoofing-panther ("Spoofing works . . . primarily against high-frequency traders who trade based on what the order book tells them."). "An order book is an electronic list of buy and sell orders for . . . specific financial instrument[s] organized by price level." INVESTOPEDIA, *Order Book*, https://www.investopedia.com/terms/o/order-book.asp (last updated May 27, 2019). It is visible to every trader on the exchange using the book.

85. Alan Jukes, *Visualizing the 'Signature' of Spoofing*, NASDAQ 1 (2017), http://nasdaqtech.nasdaq.com/Spoofing-WP-IB.

86. *See* discussion *infra* Part IX.D (discussing surveillance software to detect spoofing and layering).

87. *See* Lin, *supra* note 43, at 1283 ("Front running distorts the fair execution of trades in the marketplace . . . ."). *But see* Rishi K. Narang, *High-Frequency Traders Can't Front-Run Anyone*, CNBC (Apr. 13, 2014, 10:29 AM), https://www.cnbc.com/2014/04/03/high-frequency-traders-cant-front-run-anyonecommentary.html (arguing that speed advantage enjoyed by high-frequency traders should not be confused with front-running, and "HFTs cannot front-run anyone").

88. John D. Arnold, *Spoofers Keep Markets Honest*, BLOOMBERG OPINION (Jan. 23, 2015, 9:00 AM), https://www.bloomberg.com/view/articles/2015-01-23/high-frequency-trading-spoofers-and-front-running.

89. *Id.*

90. Nasdaq defines front-running as: "[e]ntering into an equity trade, options or futures contracts with advance knowledge of a block transaction that will influence the price of the underlying security to capitalize on the trade. This practice is expressly forbidden by the SEC. Traders are not allowed to act on nonpublic information to trade ahead of customers lacking that knowledge." NASDAQ, *Front Running*, https://www.nasdaq.com/investing/glossary/f/front-running (last visited Sept. 15, 2019).

91. FIN. INDUS. REGULATORY AUTH., *Getting Up to Speed on High-Frequency Trading* (Nov. 25, 2015),

and trade data on the 30 stocks that comprise the Dow Jones Industrial Average found that front-running is rare.[92] Insofar as front-running is both prohibited and uncommon,[93] the tolerance of spoofing as an anchor on the practice appears dubious. Third, it is not clear that spoofing would render front-running unprofitable. Some order-anticipation strategies might detect spoofing, piggy-back onto it, and enhance the front-runner's gain at the expense of the spoofer.[94] Fourth, legalizing spoofing creates an obvious slippery slope. If spoofing is legalized, then other forms of manipulation or disruption might follow suit.[95] Fifth, research has confirmed that HFT—which facilitates spoofing and layering—"plays a fundamental role in the generation of flash crashes."[96]

Overall, the argument in favor of aggressively prosecuting spoofing and layering is compelling.

D. Spoofing, Layering, and High-Frequency Trading

Spoofing and layering occur in manual[97] and even non-electronic trading.[98] However, most of the spoofing that has been prosecuted to date took place in the context of automated (algorithmic) trading,[99] much of it occurred in connection with HFT, and it

---

http://www.finra.org/investors/getting-speed-high-frequency-trading. Front-running is prohibited by FINRA Rule 5270. *See SEC Approves New FINRA Rule 5270: A Significant Expansion of FINRA's Prohibitions on Front Running Block Transactions*, WILMERHALE (Sept. 14, 2012), https://www.wilmerhale.com/en/insights/publications/sec-approves-new-finra-rule-5270-a-significant-expansion-of-finras-prohibitions-on-front-running-block-transactions (reporting expansion under Rule 5270 of FINRA's prohibition against front-running).

92. *See generally* Robert P. Bartlett, III & Justin McCrary, *How Rigged Are Stock Markets?: Evidence from Microsecond Timestamps* (Nat'l Bureau of Econ. Research, Working Paper No. 22551, 2016).

93. *But cf.* Sam Mamudi, *Charlie Munger: HFT Is Legalized Front-Running*, BARRON'S (May 3, 2013, 1:25 PM), https://www.barrons.com/articles/BL-SWB-27750 (presenting argument that HFT is legalized front-running).

94. *Spoofing Corrupts Markets: A Reply to John Arnold*, MECHANICAL MKTS. (Apr. 12, 2015), https://mechanicalmarkets.wordpress.com/2015/04/12/spoofing-corrupts-markets-a-reply-to-john-arnold/.

95. *See id.* (arguing that it is difficult to identify which forms of manipulation should be allowed and which should be excluded).

96. Jorge Goncalves et al., *Do "Speed Bumps" Prevent Accidents in Financial Markets?* 1, 3 (Working Paper July 9, 2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3384719.

97. *See, e.g.*, Press Release, U.S. Commodity Futures Trading Comm'n, CFTC Orders Floor Broker Anuj C. Singhal to Pay $150,000 Penalty for Spoofing in Wheat Futures Market (Apr. 9, 2018), https://www.cftc.gov/PressRoom/PressReleases/7709-18 (penalty imposed for spoofing via manual trading in CME wheat futures).

98. *See* Jan Paul Miller et al., *The Anti-Spoofing Provision of the Dodd-Frank Act: New White Collar Crime or 'Spoof' of a Law?*, THOMPSON COBURN, https://www.thompsoncoburn.com/docs/default-source/News-Documents/spoofing.pdf?sfvrsn=e0984cea_0 (last visited Sept. 15, 2019) ("Spoofing occurs in high frequency trading, but it also happens in manual trading and even non-electronic trading."); Paul J. Pantano et al., *Spoofing Cases Provide Insight into Civil Penalties and Highlight Criminal Exposure*, WILLKIE FARR & GALLAGHER (Feb. 9, 2018), https://www.willkie.com/~/media/Files/Publications/2018/02/Spoofing_Cases_Provide_Insight_into_Civil_Penalties.pdf ("[T]he CFTC's focus on spoofing is not limited to algorithmic trading.").

99. *See* Zach Brez et al., *CFTC 2018 Enforcement: Where the Puck Is Going*, N.Y. L.J. (Jan. 26, 2018), https://www.law.com/newyorklawjournal/sites/newyorklawjournal/2018/01/26/cftc-2018-enforcement-where-the-puck-is-going/?slreturn=20180830222228 ("Although there have been cases brought against 'manual' spoofers, the majority of CFTC and [SEC] enforcement actions against spoofers involve automated spoofing."). Some spoofing schemes involve a combination of manual and automated placement of bids and offers. *See, e.g.*, *In re* Kevin Crepeau, CFTC Docket No. 19-05 (Jan. 31, 2019), https://www.cftc.gov/sites/default/files/2019-

is anticipated that in future years most spoofing will be accomplished by traders using algorithms and HFT.[100] There is no doubt that HFT facilitates spoofing and layering schemes[101] and such schemes can multiply HFT's financial benefit to traders.[102] Spoofing and layering are more viable for HFTs because their speed permits them to mitigate the risk that other market participants will trade against their spoof orders by cancelling immediately in response to upward price moves.[103] Because HFT has pushed open the door to spoofing and layering, it is useful to consider spoofing enforcement in the broader context of HFT regulation.

HFT expanded dramatically in the last 15 years, peaked in 2009,[104] and still accounts for at least half the trading volume for both U.S. equities and futures markets.[105] Purported primary advantages of HFT include reduced short-term market volatility,[106] narrower bid-ask spreads for large-cap stocks,[107] and increased market liquidity and efficiency.[108] Purported primary disadvantages include declines in market integrity, market fairness, and quality of liquidity.[109] The disadvantages have spurred federal

---

01/enfkevincrepeauorder013119.pdf (spoofing scheme involved placement of automated small bids/offers and manual large bids/offers on opposite side of market).

100. Gregory Scopino, *Preventing Spoofing: From Criminal Prosecution to Social Norms*, 84 U. CIN. L. REV. 1069, 1088 (2016); David Yeres et al., *Spoofing: The First Criminal Conviction Comes in the U.S.—Perspectives from the U.S. and U.K.*, 36 FUTURES & DERIVATIVES L. REP. 1, 9 (Jan. 2016), https://www.cliffordchance.com/briefings/2016/03/spoofing_the_firstcriminalconvictioncomesi.html.

101. *See, e.g.*, *The Financial Conduct Authority—Part 1—Market Manipulation*, GREENBERG TRAURIG (Jan. 2019), https://www.gtlaw.com/en/insights/2019/1/the-financial-conduct-authority-part-1-market-manipulation (observing that effectiveness of spoofing to the trader is often, but not necessarily, reliant on the use of HFT platforms); *Spotlight on Spoofing: Looking Back at 2015 and Forward to 2016*, JONES DAY (Feb. 2016), https://www.jonesday.com/Spotlight-on-Spoofing-Looking-Back-at-2015-and-Forward-to-2016-02-09-2016/ (linking increase in spoofing to rise of HFT and algorithmic trading).

102. *See* Miller et al., *supra* note 98 ("Spoofing seeks to increase the available profits associated with high frequency trading . . . ."); Jodi Misher Peiken & Brent M. Tunis, *When is a Bid or Offer a 'Spoof'?*, 5 BUS. CRIMES BULL. (June 2018), https://www.maglaw.com/publications/articles/2018-06-05-when-is-a-bid-or-offer-a-spoof/_res/id=Attachments/index=0/Peikin%20Tunis.BCB.June%202018.pdf (stating that federal government's concern about spoofing arises from HFT's dramatic increase in last decade).

103. Credit Suisse, *High Frequency Trading—Measurement, Detection and Response* 4 (Dec. 6, 2012) (on file with author).

104. *See, e.g.*, Orcun Kaya, Deutsche Bank, Research Briefing, *High Frequency Trading: Reaching the Limits* (May 24, 2016), http://www.smallake.kr/wp-content/uploads/2016/05/20160530_042542.pdf ("[T]he HFT share in total equity trading has been declining since the financial crisis."). Aggregate revenues for HFT firms from trading U.S. stocks declined from $7.2 billion in 2009 to less than $1 billion in 2017. Gregory Meyer et al., *How High-Frequency Trading Hit a Speed Bump*, FIN. TIMES (Jan. 1, 2018), https://www.ft.com/content/d81f96ea-d43c-11e7-a303-9060cb1e5f44.

105. *See, e.g.*, Yesha Yadav, *The Failure of Liability in Modern Markets*, 102 VA. L. REV. 1031, 1035 (2016) (stating that HFT is responsible for 50–70% of equity volume and 60% of all futures trading in the United States); Nicole Bullock, *High-Frequency Traders Adjust to Overcapacity and Leaner Times*, FIN. TIMES (Oct. 9, 2017), https://www.ft.com/content/ca98bd2c-80c6-11e7-94e2-c5b903247afd (noting that HFTs "have become the establishment").

106. Merritt B. Fox et al., *The New Stock Market: Sense and Nonsense*, 65 DUKE L.J. 191, 245–46 (2015) ("[T]he majority of academic evidence on the subject suggests that HFTs reduce volatility.").

107. *See, e.g.*, Credit Suisse, *High Frequency Trading—The Good, the Bad, and the Regulation* 2 (Dec. 5, 2012) (on file with author) ("Various academic studies suggest HFT does indeed lead to lower volatility . . . narrower spreads and increased depth . . . , and to enhanced price efficiency.").

108. *See, e.g.*, Balp & Strampelli, *supra* note 80, at 352 (identifying HFT advantages).

109. *See, e.g.*, Morelli, *supra* note 29, at 82–83 (identifying HFT disadvantages and noting that "HFT's purported liquidity enhancements are often selective, fleeting, and even illusory").

legislation to regulate HFT, but no such bill has been enacted.[110] Similarly, the SEC,[111] CFTC,[112] and exchanges have mostly refrained from adopting HFT-specific regulatory measures.

Proposed regulations include the following: (1) imposing speed bumps that would delay orders or information and thereby reduce the speed advantage that HFTs currently enjoy over other investors; (2) requiring proprietary HFT firms that meet certain criteria to register with the CFTC, SEC, or FINRA; (3) imposing a financial transaction tax on HFT firms; (4) making illegal the practice of co-location, whereby HFT firms and brokers pay exchanges for the privilege of placing their servers in the same physical location in order to reduce latency periods; and (5) imposing order cancellation fees.[113] These proposals have been mostly—but not entirely—blocked in the United States. For example, some exchanges have created speed bumps.[114]

HFT is not unique to the United States, and other jurisdictions have been considerably more aggressive about regulating such trading. The European Union's MiFid II Directive (effective in 2018)[115] and Market Abuse Regime (effective in 2016)[116] collectively constitute the world's first and most comprehensive set of rules to tackle HFT. The rules regulate access to markets by HFTs, regulate the monitoring of algorithms, redefine market manipulation in light of HFT, categorize spoofing and layering as forms of market manipulation, and exclude intent as an element of the civil offenses of spoofing and layering.[117] Arguments in favor of harmonizing the U.S. approach to HFT with that taken by the EU[118] have merit. However, the United Kingdom—unlike the United States—has not expressly criminalized spoofing, and there have been no criminal prosecutions for spoofing in the former.[119]

---

110. *See* Joseph D. Heinz, Comment, *Spoofing: Ineffective Regulation Increases Market Inefficiency*, 67 DEPAUL L. REV. 77, 84 (2017) (noting failure of proposed bills to regulate HFT); Lindsey C. Crump, *Regulating to Achieve Stability in the Domain of High-Frequency Trading*, 22 MICH. TELECOMM. & TECH. L. REV. 161, 171 (2015) (same).

111. Balp & Strampelli, *supra* note 80, at 355.

112. *See* Tom Zanki, *Outgoing CFTC Member Wants High-Speed Trading Rules Set*, LAW360 (Sept. 26, 2017), https://www.law360.com/articles/968015/outgoing-cftc-member-wants-high-speed-trading-rules-set (discussing CFTC's failure to adopt Regulation Automated Trading).

113. Ana Avramovic, Credit Suisse, *Market Structure: We're All High Frequency Traders Now* 7 (Mar. 15, 2017) (on file with author); Lazaro I. Vazquez, *High Frequency Trading: Is Regulation the Answer?*, 17 WAKE FOREST J. BUS. & INTELL. PROP. L. 151, 167–70 (2017).

114. *See, e.g.*, Peter Stafford, *Futures Exchanges Eye Shift to 'Flash Boys' Speed Bumps*, FIN. TIMES (May 29, 2019), https://www.ft.com/content/d99eaf40-7dfc-11e9-81d2-f785092ab560 (reporting that CFTC has approved speed bumps for trading of gold and silver contracts on Intercontinental Exchange).

115. Directive 2014/65/EU, https://eur-lex.europa.eu/eli/dir/2014/65/oj; Regulation (EU) No. 600/2014, https://eur-lex.europa.eu/eli/reg/2014/600/oj (last visited Sept. 15, 2019).

116. Regulation (EU) No. 596/2014, https://eur-lex.europa.eu/eli/reg/2014/596/oj (last visited Sept. 15, 2019).

117. *See* Tilen Cuk & Arnaud Van Waeyenberge, *European Legal Framework for Algorithmic and High Frequency Trading (Mifid 2 and MAR): A Global Approach to Managing the Risks of the Modern Trading Paradigm*, 9 EUR. J. RISK REG. 146 (2018).

118. *See, e.g.*, Megan Woodward, Note, *The Need for Speed: Regulatory Approaches to High Frequency Trading in the United States and the European Union*, 50 VAND. J. TRANSNAT'L L. 1359, 1393 (2017) (presenting argument in favor of harmonization).

119. *The Financial Conduct Authority—Part 1—Market Manipulation*, GREENBERG TRAURIG (Jan. 2019), https://www.gtlaw.com/en/insights/2019/1/the-financial-conduct-authority-part-1-market-manipulation. The U.K.'s Financial Conduct Authority has pursued civil enforcement in relation to spoofing conduct. Aaron

E. How Do Spoofing and Layering Differ from Other Similar Forms of Trading?

Multiple forms of trading share some characteristics with spoofing and layering. As indicated, the key attribute of spoofing and layering is that bids are made with no intent to execute, and thus non-execution is the norm. Non-execution also may appear to characterize some of the non-spoofing, non-layering trading and HFT that takes place—order cancellation is the norm and order execution is the exception. A 2013 study by the SEC found that less than 5% of orders placed on stock exchanges were filled,[120] and a separate study found that for exchange-traded products, the ratio is more than 80 order cancellations for every trade.[121] Approximately 40% of cancelled orders in the equity markets are in force for half a second or less,[122] which is roughly the speed of human reaction. While similar data for futures markets do not appear to be readily available, order cancellation is so common[123] that futures exchanges provide numerous order types that presuppose cancellation.[124] It is important to distinguish the primary non-spoof strategies from spoofing and layering,[125] in which bids and offers are placed with no intent to execute.

One strategy that shares some characteristics with spoofing is "banging the close" or "marking the close." "[C]ourts have not precisely defined the[se] term[s],"[126] but the strategy generally consists of trading or placing bids/offers of a significant volume of futures contracts during or shortly before the closing or settlement period of the contracts in an effort to influence price in the trader's favor[127]—usually to benefit a commodity or

---

Stephens et al., *Spoofing the Market: A Comparison of US and UK Law and Enforcement*, KING & SPALDING (June 13, 2019), https://www.kslaw.com/attachments/000/007/023/original/ca061319.pdf?1560455048.

120. *See Trade to Order Volume Ratios*, U.S. SEC. & EXCH. COMM'N (Oct. 9, 2013), https://www.sec.gov/marketstructure/research/highlight-2013-01.html#.XAs71mhKhPY ("[T]rade-to-order volume ratio for stocks is typically between 2.5% and 4.2% . . . .").

121. *See* John Montgomery, *Spoofing, Market Manipulation, and the Limit-Order Book*, NAVIGANT CONSULTING, INC. 3 n.11 (May 3, 2016), https://www.navigant.com/~/media/WWW/Site/Insights/Economics/2016/ECON_SpoofingMarketManipulation_TL_0516.pdf.

122. *See The Speed of the Equity Markets*, U.S. SEC. & EXCH. COMM'N (Oct. 9, 2013), https://www.sec.gov/marketstructure/research/highlight-2013-05.html#.Xa-CDChKhPY ("38.7% of all canceled orders were in force for half of one second or less . . . ."). Jodi Misher Peikin & Justin Roller, *"Spoofing" as Fraud: A Novel and Untested Theory of Prosecution*, 26 BUS. CRIMES BULL. (Apr. 2019), http://www.lawjournalnewsletters.com/2019/04/01/spoofing-as-fraud-a-novel-and-untested-theory-of-prosecution/?slreturn=20190705142915 (citing Richard Haynes & John S. Roberts, *Automated Trading in Futures Markets*, at 9 (CFTC 2015)).

123. According to one estimate, more than half of bids or offers placed in futures markets are canceled. *See* Roy Strom, *An Unlikely Pair of Lawyers Team Up to Fight 'Spoofing' Cases*, NAT'L L.J. (June 13, 2016), https://www.law.com/nationallawjournal/almID/1202759922609/An-Unlikely-Pair-of-Lawyers-Team-Up-to-Fight-Spoofing-Cases/.

124. *See CME Globex Reference Guide*, CME GROUP 13, 25, https://www.cmegroup.com/globex/files/GlobexRefGd.pdf?utm_source=cmegroup&utm_medium=friendly&utm_campaign=globexreferenceguide&redirect=/globexreferenceguide (last visited Sept. 15, 2019) (describing order types).

125. *See* Peiken & Tunis, *supra* note 102 (stating that biggest challenge of anti-spoofing enforcement "is distinguishing between HFT strategies that constitute illegal spoofing and HFT strategies that constitute legitimate trading activity").

126. CFTC v. Wilson, No. 13 Civ. 7884 (RJS), 2018 WL 6322024, at *17 (S.D.N.Y. Nov. 30, 2018).

127. McCracken & Schleppegrell, *supra* note 38, at 5.

commodity futures position held elsewhere by the trader.[128] Such conduct is a regulatory target because "end–of–day trading often has an outsized impact on asset pricing."[129] The CFTC and SEC treat marking the close as manipulative and deceptive and therefore illegal under CEA Section 4c(a),[130] Securities Exchange Act (Exchange Act) Section 10(b),[131] and companion Rule 10b-5.[132] The offense has two elements: (1) conduct evidencing a scheme to mark the close—i.e., trading at or near the close of the market so as to influence the price of a security; and (2) scienter, which is defined as "a mental state embracing intent to deceive, manipulate, or defraud."[133]

A second form is wash trading. A wash trade is one in which a market participant takes both sides of prearranged, noncompetitive trades with the intent that they offset each other.[134] This conduct is illegal under CEA Section 4c(a),[135] Exchange Act Section 10(b), and Rule 10b-5.[136] The elements of the offense are: (1) "purchase and sale of any commodity for future delivery," (2) "of the same delivery month of the same futures contract," (3) "at the same or similar price," and (4) "with the intent of not making a bona fide trading transaction."[137]

A third category encompasses fill or kill, stop-loss, and partial fill orders. Fill or kill orders "are programmed to cancel if not filled immediately"[138] and are designed to ensure that a position is entered into at a desired price and quantity, or not at all. Such orders are uncommon[139] and have their greatest utility when large volumes are involved, because absent the fill or kill programming the price could change significantly during the time required to fill. Stop-loss orders are entered with the intent to execute if the price falls or rises to a certain level,[140] while partial fill orders are entered with the intent to execute any portion or the entire quantity of the order, with the remainder being cancelled.[141] All three order types were regarded as lawful prior to the 2010 enactment of

128. *Wilson*, 2018 WL 6322024, at *17; CLIFFORD CHANCE, OVERVIEW OF UNITED STATES AND UNITED KINGDOM DERIVATIVE AND COMMODITY MARKET ENFORCEMENT REGIMES 67 (Dec. 2016), https://www.aima.org/uploads/assets/uploaded/17f40585-6fee-4896-9e80e1f45fc69514.pdf.

129. *See* Gina-Gail S. Fletcher, *Legitimate Yet Manipulative: The Conundrum of Open-Market Manipulation*, 68 DUKE L.J. 479, 507 (2018).

130. 7 U.S.C. § 6c(a) (2018).

131. 15 U.S.C. § 78j (2018).

132. 17 C.F.R. § 240.10b-5 (2019). *See, e.g.*, Matthew Rossi & J. Gregory Deis, *US SEC Brings First Enforcement Action for Market Manipulation Through High-Frequency Trading*, MAYER BROWN (Oct. 23, 2014), https://www.mayerbrown.com/us-sec-brings-first-enforcement-action-for-market-manipulation-through-high-frequency-trading-10-23-2014 (describing SEC enforcement action under § 10(b) and Rule 10b-5 for marking the close).

133. Koch v. SEC, 793 F.3d 147, 152 (D.C. Cir. 2015) (quoting *In re* Koch, Admin. Proc. File No. 3-14355, 2014 SEC LEXIS 1684, at *33 (SEC 2014)).

134. McCracken & Schleppegrell, *supra* note 38, at 12.

135. 7 U.S.C. § 6c (2018).

136. *See, e.g.*, Santa Fe Indus., Inc. v. Green, 430 U.S. 462, 476 (1977) (discussing the Exchange Act's prohibition of manipulative practices "such as wash sales, matched orders, or rigged prices, that are intended to mislead investors by artificially affecting market activity").

137. CFTC v. Moncada, 31 F. Supp. 3d 614, 617 (S.D.N.Y. 2014).

138. United States v. Coscia, 866 F.3d 782, 800 (7th Cir. 2017).

139. Catriona Coppler, Comment, *The Anti-Spoofing Statute: Vague as Applied to the 'Hypothetically Legitimate Trader*,*'* 5 AM. UNIV. BUS. L. REV. 261, 282 (2016) ("On an average day, 1.56 percent of all orders entered in the market are FOK orders.").

140. CFTC v. Oystacher, 203 F. Supp. 3d 934, 946 (N.D. Ill. 2016).

141. *Id.* at 947.

the Dodd-Frank Wall Street Reform and Consumer Protection Act (DFA)[142] and they remain so following the amendment of the CEA by the DFA.[143]

A fourth category is iceberg orders, which comprise an order type expressly designed to display to the market only a portion of the total order size[144] and thus may appear to share a feature with spoof orders.[145] When the visible part of the iceberg order is filled, a new part of the hidden portion becomes visible. The placement of iceberg orders is a legitimate trading strategy expressly allowed by the CME[146] and accepted by both the CFTC and DOJ. But iceberg orders, which became increasingly common as electronic trading replaced trading pits, can be combined with other orders[147] and the combination may be improper. If a trader submits numerous small orders as icebergs, but then submits and cancels a number of large orders that are entirely visible to the market, the government may infer that the large canceled orders were intended to spoof. The CFTC made such inferences in its 2014 settlement of a spoofing case involving wheat futures[148] and in its 2017 settlement of a spoofing case involving crude oil, gold, silver, and copper futures.[149] In another more recent case, two precious metals traders were indicted by the DOJ in July 2018, in connection with a six-year scheme that involved both spoofing and the placement of iceberg orders for gold, silver, platinum, and palladium futures on Commodity Exchange, Inc. (COMEX).[150] Still more recently, three precious metals traders who worked for JPMorgan Chase were indicted in August 2019 in connection with an eight-year scheme that allegedly involved both thousands of spoof orders and the placement of iceberg orders.[151]

---

142. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (July 21, 2010).

143. *See Oystacher*, 203 F. Supp. 3d at 946 (observing that fill or kill, stop-loss, and partial fill orders do not inherently require entering them with the intent to cancel prior to execution).

144. *See* Ilan Guedj & An Wang, *An Update on Spoofing and its Challenges*, LAW360 (Mar. 16, 2016, 12:14 PM), https://www.law360.com/articles/1022562/an-update-on-spoofing-and-its-challenges ("[A]n iceberg order allows the trader to display only a preset and often very small quantity of the total amount, potentially disguising a large order in the order book."). Iceberg orders can sometimes be detected by traders using small ping orders—typically of 100 shares or less—to test or ping the market. *See* Elvis Picardo, *Understanding High-Frequency Trading Terminology*, INVESTOPEDIA, https://www.investopedia.com/articles/active-trading/042414/youd-better-know-your-highfrequency-trading-terminology.asp (last updated May 30, 2019).

145. *See* Jon Hill, *Ex-Trader's Acquittal Shines Spotlight on Evidence of Intent*, LAW360 (Apr. 7, 2018, 4:54 PM), https://www.law360.com/articles/1037563/ex-trader-s-acquittal-shines-spotlight-on-evidence-of-intent (noting parallel characteristics of iceberg and spoofing orders).

146. *See* CFTC v. Oystacher, No. 16-CV-9196, 2016 WL 3693429, at *27 (N.D. Ill. July 12, 2016) (noting that traders "have the option to enter orders as iceberg orders in all futures markets except the VIX market"). The VIX Volatility Index, created by the Chicago Board Options Exchange, is a real-time index that represents the market's expectation of 30-day forward-looking volatility. Justin Kuepper, *CBOE Volatility Index (VIX) Definition*, INVESTOPEDIA, https://www.investopedia.com/terms/v/vix.asp (last updated June 25, 2019).

147. Guedj & Wang, *supra* note 144.

148. Consent Order at 12–13, CFTC v. Moncada, Civ. Action No. 12-cv-8791 (CM) (GWG) (S.D.N.Y. Oct. 1, 2014) (describing use of iceberg orders).

149. Simon Posen, CFTC Docket No. 17-20, 2017 WL 3216576, at *2 (C.F.T.C. July 26, 2017) (describing use of iceberg orders).

150. Indictment, U.S. v. Bases, No. 18 CR 48 (N.D. Ill. July 17, 2018). *See also* CFTC v. Oystacher, Case No. 15-cv-09196, 2016 WL 8256391, at *4–5 (N.D. Ill. Dec. 20, 2016) (describing defendants' combined use of iceberg and spoof orders).

151. *See* Jody Godoy, *3 JPMorgan Traders Accused of 8-Year Spoofing Racket*, LAW360 (Sept. 16, 2019, 8:34 AM), https://www.law360.com/securities/articles/1198568/3-jpmorgan-traders-accused-of-8-year-spoofing-racket?nl_pk=8b240a19-db95-4ea6-91e0-

III. SPOOFING ENFORCEMENT IN THE FUTURE MARKETS

Anti-spoofing enforcement currently takes place pursuant to a multitude of inconsistent statutes. As noted by one review, U.S. laws "prohibit spoofing a half dozen times, each time with different elements, and *only one time by name*."[152] The statutory anti-spoofing regime in futures markets is examined below.

A. Pre-Dodd-Frank Act

Prior to the enactment of the DFA in 2010 the CFTC's authority to regulate manipulative behavior was sharply constrained. The CEA prohibits fraud in Section 4b—which governs contracts designed to defraud or mislead—but this provision has been held to apply only in connection with an order to make a futures contract for a customer,[153] and thus its utility has been marginal in spoofing cases.

Section 6(c) of the CEA provides the CFTC with authority to pursue an administrative enforcement action against traders who manipulated or attempted to manipulate the market price of a commodity or future, and Section 9(a)(2) makes it unlawful to manipulate or attempt to manipulate the price of a commodity or future.[154] The CEA nowhere defines the term "market manipulation."[155] In this vacuum federal courts have held that a manipulation charge requires the Commission to prove four elements: (1) defendant had the ability to influence market prices, (2) defendant specifically intended to influence market prices, (3) an artificial price existed, and (4) defendant caused the artificial price.[156] An artificial price is one that fails to reflect legitimate forces of supply and demand,[157] but there is very little case law explaining how the CFTC should distinguish between such legitimate forces and "extrinsic, artificial forces, particularly with respect to illiquid markets."[158] Moreover, in futures markets

b797c8600de2&utm_source=newsletter&utm_medium=email&utm_campaign=securities (discussing racketeering charges against JPMorgan Chase traders). Even more recently, the largest spoofing settlement with the government, reached in November 2019 for a record $67.4 million, also concerned the placement of spoof orders in combination with iceberg orders. *See* Charley Mills & Matt Kulkin, *Record Spoofing Settlement Provides Guidance for Traders*, LAW360 (Nov. 15, 2019, 4:39 PM), https://www.law360.com/articles/1219716/record-spoofing-settlement-provides-guidance-for-traders (discussing resolution of criminal and civil charges against Tower Research Capital LLC).

152. Sanders, *supra* note 40, at 524 (citation omitted).

153. David L. Kornblau et al., *Market Manipulation and Algorithmic Trading: The Next Wave of Regulatory Enforcement?*, 43 SEC. REG. & L. REP. 369 (Feb. 20, 2012), https://www.cov.com/-/media/files/corporate/publications/2012/02/market_manipulation_and_algorithmic_trading.pdf.

154. GEORGE S. CANELLOS ET AL., THE LAW SURROUNDING SPOOFING IN THE DERIVATIVES AND SECURITIES MARKETS 2 (June 2016), https://www.milbank.com/images/content/2/4/v5/24678/Spoofing-in-the-Derivatives-and-Securities-Markets-June-2016.pdf [hereinafter LAW SURROUNDING SPOOFING].

155. CFTC v. Wilson, No. 13 Civ. 7884 (RJS), 2018 WL 6322024, at *12 (S.D.N.Y. Nov. 30, 2018).

156. *See, e.g.*, *In re* Amaranth Nat. Gas Commodities Litig., 730 F.3d 170, 173 (2d Cir. 2013); *Wilson*, 2018 WL 6322024, at *13.

157. *Wilson*, 2018 WL 6322024, at *13. *See also* Indiana Farm Bureau Coop. Ass'n, No. 75-14, 1982 WL 30249, at *4 n.2 (C.F.T.C. Dec. 17, 1982) (defining artificial price under the CEA as one that "does not reflect the market or economic forces of supply and demand").

158. Aitan Goelman, *Decision in DRW Makes it Even Harder for the CFTC to Prove Up Manipulation*, NYU L.: COMPLIANCE & ENFORCEMENT (Jan. 22, 2019), https://wp.nyu.edu/compliance_enforcement/2019/01/22/decision-in-drw-makes-it-even-harder-for-the-cftc-to-prove-up-manipulation/.

both trading activity and commodity processes are highly volatile, so there may be no single benchmark price against which other price points may be reliably judged to determine potential artificiality.[159]

The foregoing four elements were virtually impossible for the CFTC to establish. Pre-DFA, all of the CFTC's civil enforcement actions involving spoofing settled,[160] and only three people had been publicly charged in the United States with criminal spoofing.[161] More broadly, during the first 35 years of its existence (1974-2009) the CFTC settled numerous cases but it successfully litigated to final judgment only one contested case of manipulation in the futures markets.[162] As noted by former CFTC Commissioner Bart Chilton before the enactment of the DFA, "[p]roving manipulation is so onerous as to . . . be almost impossible."[163]

B. Post-Dodd-Frank Act

Anti-spoofing civil and criminal enforcement has changed dramatically since the DFA amended the CEA. The next section of this Article discusses those developments. The discussion begins with an analysis of the statutory amendments.

1. The CFTC Obtains New Authority

First, the DFA added Section 6(c)(1) to the CEA,[164] as a stand-alone manipulation provision. This addition is very similar to Exchange Act Section 10(b) insofar as it prohibits the use of any "manipulative or deceptive device or contrivance" in connection with a swap or contract for sale of any product or instrument covered by the CEA.[165] The legislative history of Section 6(c)(1) suggests that Congress intended to provide the CFTC with the same authority to pursue manipulation that the SEC already had under Exchange Act Section 10(b).[166]

---

159. Braden Perry, *CFTC's Silence Stings in Wheat Futures Manipulation Case*, LAW360 (Aug. 20, 2019, 3:53 PM), https://www.law360.com/articles/1190458/cftc-s-silence-stings-in-wheat-futures-manipulation-case.

160. Scopino, *supra* note 100, at 1092.

161. Mark D. Young et al., *CFTC and DOJ File a Flurry of Spoofing Actions*, SKADDEN, ARPS, SLATE, MEAGHER & FLOM LLP (Feb. 6, 2018), https://www.skadden.com/insights/publications/2018/02/cftc-and-doj-file-a-flurry-of-spoofing-actions.

162. Bart Chilton, Comm'r, CFTC, *De Principatibus* at Argus Media Summit, Houston, TX (Oct. 21, 2009), https://www.cftc.gov/sites/default/files/idc/groups/public/@newsroom/documents/speechandtestimony/opachilton-28.pdf [hereinafter *De Principatibus*]. The case is Anthony J. DiPlacido, No. 01-23, 2008 WL 4831204 (C.F.T.C. Nov. 5, 2008), *aff'd sub nom.* Di Placido v. CFTC, 364 Fed. App'x 657 (2d Cir. 2009) (summary order).

163. *De Principatibus*, *supra* note 162. *See also* Jerry W. Markham, *Manipulation of Commodity Futures Prices—The Unprosecutable Crime*, 8 YALE J. ON REG. 281, 356 (1991) (stating that "manipulation is virtually an unprosecutable crime"). The CFTC's dismal record in satisfying the four-part test under Section 9(a)(2) was one of the factors that motivated Congress to amend the CEA and give the CFTC additional avenues of enforcement under the DFA. Goelman, *supra* note 158.

164. *See* 7 U.S.C. § 9(1) (2018).

165. *Id.*

166. *See* David Yeres et al., *U.S. Market Manipulation: Has Congress Given the CFTC Greater Latitude than the SEC to Prosecute Open Market Trading as Unlawful Manipulation? It's Doubtful*, 38 FUTURE & DERIVATIVES L. REP. 1 (June 2018), https://www.cliffordchance.com/content/dam/cliffordchance/Thought_Leadership/US%20Market%20Manipulation_has%20congress%20given%20the%20CTFC%20greater%20latitude%20than%20the%20SEC%20to%20prosecute%20open%20market%20trading.pdf [hereinafter *U.S. Market Manipulation*] (discussing legislative

Second, Section 747 of the DFA added Section 4c(a)(5)(C) to the CEA to prohibit three types of transactions designated "disruptive trading." One of those transactions is spoofing in commodity markets, which for the first time was expressly prohibited by a federal statute. The amended CEA states in pertinent part: "It shall be unlawful for any person to engage in any trading, practice, or conduct . . . [that] is, is of the character of, or is commonly known to the trade as, 'spoofing' (bidding or offering with the intent to cancel the bid or offer before execution)."[167] The single quotation marks are part of the DFA's statutory text and reflect the potentially ambiguous nature of the offense.[168]

In theory, the CFTC can choose to pursue a violation of Section 4c(a)(5)(C) in administrative proceedings or in federal district court, as it can with respect to other provisions of the CEA.[169] A person who is found liable for spoofing in an administrative proceeding can be barred from trading on an exchange, have her CFTC registration suspended or revoked, and be compelled to pay restitution and a penalty (not to exceed the greater of $140,000 or triple the monetary gain to the person for each violation).[170] A person who is found liable for spoofing in federal district court can be enjoined and compelled to pay disgorgement, restitution, and a penalty subject to the same dollar limit applicable in administrative proceedings.[171] In practice, the CFTC does not litigate spoofing cases in administrative proceedings because it has not employed administrative law judges since 2012 and it has not borrowed ALJs from other agencies.[172]

Section 4c(a)(5)(C) has no legislative or drafting history. There was no relevant committee report, there was no relevant testimony by any witness, and there was no discussion during floor debates about the DFA.[173] The sole reference to this new section is this statement from one senator: "The CFTC requested, and received, enforcement authority with respect to insider trading, restitution authority, and disruptive trading practices."[174]

The CFTC adopted new Rule 180.1, effective on July 14, 2011, to implement the DFA's amendment of the CEA to add Section 6(c)(1). Rule 180.1 is modeled on and nearly identical to SEC Rule 10b-5,[175] so that when interpreting the former courts are

---

history of § 6(c)(1)).

167. 7 U.S.C. § 6c(a)(5)(C) (2018).

168. Cadwalader, Wickersham & Taft LLP, *United States: 'Spoofing' — A New, Amorphous Crime with Domestic & International Implications for Traders*, MONDAQ (Feb. 17, 2016), http://www.mondaq.com/unitedstates/x/466718/Commodities+Derivatives+Stock+Exchanges/Spoofing+A+New+Amorphous+Crime+with+Domestic+International+Implications+for+Traders.

169. *See* Gideon Mark, *SEC and CFTC Administrative Proceedings*, 19 U. PA. J. CONST. L. 45, 60 (2016) (describing the CFTC's historical use of administrative proceedings).

170. *See* 7 U.S.C. §§ 9(4), 9(10), 13b (2018) (specifying potential penalties).

171. *See* 7 U.S.C. §13a-1 (2018) (specifying potential penalties).

172. *See* Mark, *supra* note 169, at 62–63 (describing CFTC's recent failure to employ ALJs or borrow them from SEC). In May 2019, the CFTC's Division of Enforcement released an Enforcement Manual. This was the first public document of its kind from the Division. As is explained in the Manual, if an administrative proceeding does occur, an appeal would be taken to the Commission. After the Commission issues its decision, the respondent may appeal to the federal court of appeals for the circuit in which he or she is doing business. U.S. COMMODITY FUTURES TRADING COMM'N, DIV. OF ENFORCEMENT, ENFORCEMENT MANUAL 27 (May 8, 2019), https://www.cftc.gov/PressRoom/PressReleases/7925-19.

173. *See* United States v. Coscia, 866 F.3d 782, 787 n.7 (7th Cir. 2016) (underscoring the absence of legislative history).

174. *See id.* (citing 156 Cong. Rec. S5922 (2010)) (emphasis omitted).

175. *See* Prohibition on the Employment, or Attempted Employment, of Manipulative and Deceptive

guided—but not controlled—by the substantial body of judicial precedent interpreting the latter.[176]

The new rule expanded the CFTC's historical authority over manipulative activity in at least three significant respects. First, Rule 180.1 is not limited to transactions, but instead extends to all activities that have a relationship to the futures contract or swap at issue. It reaches all manipulative or deceptive conduct in connection with the "purchase, sale, solicitation, execution, pendency, or termination of any swap, or contract of sale of any commodity in interstate commerce, or for future delivery. . . ."[177] Second, the rule also imposes liability for attempts to use manipulative devices or schemes to defraud,[178] and in this respect grants to the CFTC more expansive authority to assert a manipulation claim than is granted to the SEC under Exchange Act Section 10(b) and Rule 10b-5.[179] This is significant, because attempted manipulation does not require proof of an artificial price[180] and the penalties for attempt can be as steep as they are for traditional manipulation.[181] Third, Rule 180.1 reduces the scienter requirement from specific intent to recklessness.[182] This aspect is probably the most important.[183] It both lowers the threshold and shifts the focus from a subjective determination of intent to an objective assessment of recklessness. This reduction has been controversial, for reasons that are explained in a subsequent section of this Article,[184] and it has not been universally accepted. Some observers contend that specific intent *is* required to establish a violation under the manipulation prong of CEA Section 6(c)(1) and Rule 180.1.[185]

Devices and Prohibition on Price Manipulation, 76 Fed. Reg. 41,398, 41,399 (July 14, 2011) ("Given the similarities between CEA section 6(c)(1) and Exchange Act section 10(b), the [CFTC] deems it appropriate and in the public interest to model final Rule 180.1 on SEC Rule 10b-5."). The CFTC added: "[B]y modeling final Rule 180.1 on SEC Rule 10b-5, the [CFTC] takes an important step toward harmonization of regulation of the commodities, commodities futures, swaps, and securities markets . . . ." *Id.* at 41,399 n.11.

176. *See* CFTC v. Kraft Foods Grp., Inc., 153 F. Supp. 3d 996, 1009 (N.D. Ill. 2015) (noting that case law interpreting Section 10(b) and Rule 10b-5 is "instructive" when applying Section 6(c)(1) of the CEA and Rule 180.1)); Fletcher, *supra* note 129, at 498–99 ("By modeling Rule 180.1 on Rule 10b-5, the CFTC signaled its incorporation of decades of Rule 10b-5 jurisprudence and interpretation."). *But cf. U.S. Market Manipulation*, *supra* note 166, at 4 (arguing that judicial interpretation of Rule 10b-5 should be controlling, rather than merely guiding, in cases involving application of Rule 180.1).

177. Press Release, U.S. Commodity Futures Trading Comm'n, Anti-Manipulation and Anti-Fraud Final Rules, https://www.cftc.gov/sites/default/files/idc/groups/public/@newsroom/documents/file/amaf_factsheet_final.pdf.

178. David Meister et al., *Rule 180.1: The CFTC Targets Fraud and Manipulation*, N.Y. L.J. (Apr. 7, 2014), https://www.law.com/newyorklawjournal/almID/1202649563488/?slreturn=20190823195822.

179. David L. Kornblau et al., *Market Manipulation and Algorithmic Trading: The Next Wave of Regulatory Enforcement?*, 43 SEC. REG. & L. REP. 369 (Feb. 20, 2012), https://www.cov.com/-/media/files/corporate/publications/2012/02/market_manipulation_and_algorithmic_trading.pdf.

180. CFTC v. Wilson, No. 13 Civ. 7884, 2018 WL 6322024, at *15 (S.D.N.Y. Nov. 30, 2018).

181. Deborah A. Monson et al., *Year in Review: Recent Developments in CFTC Enforcement*, 50 SEC. REG. & L. REP. 147 (Jan. 22, 2018).

182. *See* Gregory Scopino, *The (Questionable) Legality of High-Speed 'Pinging' and 'Front-Running' in the Futures Markets*, 47 CONN. L. REV. 607, 665 (2015) ("Rule 180.1 prohibits fraud-based manipulation claims under a lower scienter standard of recklessness, as opposed to CEA Sections 6(c), 6(d), and 9(a)(2), which require proof of specific intent.").

183. *Id.* at 675 (stating that primary benefit of Rule 180.1 to the CFTC is that the rule only requires proof of recklessness).

184. *See infra* Part IV.B (discussing judicial splits concerning open market manipulation).

185. *See* David Yeres et al., *A Bridge Too Far: CFTC's 'Reckless' Manipulation Theory*, LAW360 (Jan. 4, 2019, 5:20 PM), https://www.law360.com/articles/1113505/a-bridge-too-far-cftc-s-reckless-manipulation-

The scope of Section 6(c)(1) and Rule 180.1 is somewhat hazy, even apart from the debate about intent. The CFTC seeks to use the statute and rule in pure fraud cases, pure manipulation cases, and cases that combine both fraud and manipulation.[186] A quartet of cases decided in 2018 reached conflicting results and reflected an existing split with regard to the CFTC's approach. The Eleventh Circuit found fraud liability in the absence of market manipulation under Section 6(c)(1) and Rule 180.1, in a case involving investments in metals derivatives.[187] Similarly, a New York federal district court held in a case involving the trading of virtual currency that Section 6(c)(1) and Rule 180.1 prohibit fraud or manipulation alone, and do not require proof of both.[188] And a Massachusetts federal district court held that the CFTC's anti-fraud enforcement authority under Section 6(c)(1) and Rule 180.1 extends to transactions in virtual currency even absent allegations of manipulation.[189] Conversely, a California federal district court held that the CEA limits the application of Section 6(c)(1) and Rule 180.1 to instances of manipulation that involve fraud.[190] If the Ninth Circuit had adopted this minority view[191] then the authority of the CFTC to pursue spoofing cases under Section 6(c)(1) and Rule 180.1 would have been sharply constrained. In 2019, however, the Ninth Circuit reversed and held that the CFTC can "sue for fraudulently deceptive activity, regardless of whether it [is] also manipulative."[192]

2. The CFTC Issues Interpretive Guidance

Although Section 4c(a)(5)(C) is self-executing,[193] the CFTC issued final Interpretive Guidance in May 2013 to clarify what conduct constitutes spoofing.[194] The Guidance is not a binding limitation on the CFTC's jurisdiction or enforcement authority.[195] It was issued following the termination of a rulemaking effort, commenced in November 2010, which cratered in large part because the CFTC was unable to clearly define spoofing.[196] The Guidance declared that spoofing behavior includes, but is not limited to, the following four examples:

---

theory.

186. Mark D. Young et al., *Recent Court Decisions Shine Spotlight on Scope of CFTC's Dodd-Frank Anti-Fraud and Anti-Manipulation Enforcement Authority*, SKADDEN, ARPS, SLATE, MEAGHER & FLOM LLP (Oct. 1, 2018), https://www.skadden.com/insights/publications/2018/10/recent-court-decisions-shine-spotlight.

187. CFTC v. So. Trust Metals, Inc., 894 F.3d 1313, 1325–27 (11th Cir. 2018).

188. CFTC v. McDonnell, 287 F. Supp. 3d 213, 217 (E.D.N.Y. 2018). *See also* Ploss v. Kraft Foods Grp., Inc., 197 F. Supp. 3d 1037, 1055 (N.D. Ill. 2016) (holding that an explicit misrepresentation is not required to state a Section 6(c)(1) claim).

189. CFTC v. My Big Coin Pay, Inc., No. 18-10077-RWZ, 2018 WL 4621727 (D. Mass. Sept. 26, 2018).

190. CFTC v. Monex Credit Corp., 311 F. Supp. 3d 1173, 1189 (C.D. Cal. 2018), *rev'd*, 931 F.3d 966 (9th Cir. 2019).

191. In the first judicial interpretation of Rule 180.1the court held that Rule 180.1 only prohibits fraud and fraud-based manipulation. CFTC v. Kraft Foods Grp., Inc., 153 F. Supp. 3d 996, 1009 (N.D. Ill. 2015).

192. *Monex Credit Corp.*, 931 F.3d at 976.

193. *See* Antidisruptive Practices Authority, 78 Fed. Reg. 31,890, 31,890 n.4 (May 28, 2013) ("The Commission also notes that new CEA section 4c(a)(5) is self-effectuating.").

194. Antidisruptive Practices Authority, 78 Fed. Reg. 31,890–31,897 (May 28, 2013).

195. *Charge Against Spoofing*, *supra* note 2, at 2.

196. *See* Peiken & Tunis, *supra* note 102 (discussing failed effort at rulemaking); U.S. COMMODITY FUTURES TRADING COMM'N, STAFF ROUNDTABLE ON DISRUPTIVE TRADING PRACTICES 64, 171–72 (2010), https://www.cftc.gov/sites/default/files/idc/groups/public/@swaps/documents/dfsubmission/dfsubmission24_120210-transcri.pdf (noting difficulty of defining spoofing).

> (i) [s]ubmitting or cancelling bids or offers to overload the quotation system of a registered entity, (ii) submitting or cancelling bids or offers to delay another person's execution of trades, (iii) submitting or cancelling multiple bids or offers to create an appearance of false market depth, and (iv) submitting or cancelling bids or offers with intent to create artificial price movements upwards or downwards.[197]

A Section 4c(a)(5)(C) violation does not require manipulative intent, but a market participant still must act "with some degree of intent . . . beyond recklessness" to engage in the spoofing trading practices prohibited by the statute.[198] Specifically, spoofing requires "intent to cancel the order at the time it was placed,"[199] which invariably will be easier to prove than an intent to cause artificial prices.

The CFTC underscored in the Interpretive Guidance that while it plans to evaluate all of the facts and circumstances of each particular case—including a person's trading practices and patterns—it does not seek to make a pattern of trading activity a requirement of the offense. A single instance of trading activity could constitute a violation of Section 4c(a)(5)(C), provided it was conducted with the prohibited intent.[200] The Guidance does not, however, set forth parameters defining when trading practices cross the line from legitimate conduct to proscribed spoofing. Nor does it define the phrase "beyond recklessness."[201] These omissions have caused some confusion among futures traders as to whether their strategies are illegal.[202] The CFTC does not appear troubled by this fog and instead has punted to the courts to ultimately decide what conduct constitutes spoofing or layering.[203]

3. The CFTC Retains its Former Authority

Following the amendment of the CEA by the DFA, the CFTC also retained its traditional authority over manipulative conduct under new CEA Section 6(c)(3),[204] new Rule 180.2[205] (adopted simultaneously with new Rule 180.1), and Section 9(a)(2).[206] Section 6(c)(3) makes it "unlawful for any person, directly or indirectly, to manipulate or

197. Antidisruptive Practices Authority, 78 Fed. Reg. 31,890, 31,896 (May 28, 2013).

198. U.S. COMMODITY FUTURES TRADING COMM'N, INTERPRETIVE GUIDANCE AND POLICY STATEMENT ON DISRUPTIVE PRACTICES, https://www.cftc.gov/sites/default/files/idc/groups/public/@newsroom/documents/file/dtp_factsheet.pdf (last visited Nov. 3, 2019).

199. United States v. Coscia, 866 F.3d 782, 795 (7th Cir. 2017) (emphasis omitted).

200. Antidisruptive Practices Authority, 78 Fed. Reg. 31,890, 31,896 (May 28, 2013).

201. Courts have often defined "recklessness" as conduct "that departs so far from the standards of ordinary care that it is very difficult to believe the [actor] was not aware of what he was doing." Drexel Burnham Lambert, Inc. v. CFTC, 850 F.2d 742, 748 (D.C. Cir. 1988) (quoting First Commodity Corp. v. CFTC, 676 F.2d 1, 7 (1st Cir. 1982)).

202. *See, e.g.*, Christian T. Kemnitz et al., United States v. Coscia*: First Spoofing Conviction Leaves Hard Questions for Another Day*, 49 SEC. REG. & L. REP. 1412 (Sept. 4, 2017), https://www.kattenlaw.com/files/221664_spcoscia_sept4_srlr.pdf ("Despite regulators' significant recent interest in 'spoofing,' there is little consensus as to how exactly that term should be understood.").

203. *See* Peiken & Tunis, *supra* note 102.

204. 7 U.S.C. § 9(3) (2018).

205. 17 C.F.R. § 180.2 (2019).

206. 7 U.S.C. § 13 (2018).

attempt to manipulate the price of" a swap, commodity, or future,[207] and Rule 180.2 mirrors that language. Civil liability under Section 6(c)(3) tracks Section 9(a)(2)'s criminal proscription. The CFTC has stated that it will apply Rule 180.2 using the traditional four-part test that had long bedeviled it in manipulation cases[208] and this test continues to apply under Section 9(a)(2).[209] Whereas, under Rule 180.1, recklessness suffices and no artificial price must be shown to establish a violation under Rule 180.1, a Rule 180.2 violation requires a specific intent to create or affect a price or price trend that does not reflect legitimate forces of supply and demand.[210] The CFTC can choose to pursue a violation of Section 6(c) or Section 9(a)(2) either in an administrative proceeding or in federal district court, and the potential penalty (up to one million dollars for each violation)[211] is significantly greater than it is for a violation of Section 4c(a)(5)(C).

4. The CFTC Exercises its Authority in Combination with the DOJ

The CFTC did not take immediate advantage of its new enforcement authority. It did not bring its first spoofing or layering enforcement action under the amended CEA until 2013, when it settled with Panther Energy Trading, LLC (Panther) and Coscia.[212] Respondents had used a layering algorithm to quickly place and cancel a series of bids or offers designed to induce changes in price and demand in order to benefit orders they desired to execute.[213] In the CFTC's civil action, respondents paid a $1.4 million penalty, disgorged an additional $1.4 million in trading profits, and agreed to serve a one-year suspension from trading on any CFTC-registered entity.[214] This suspension was criticized as wholly inadequate by former CFTC Commissioner Bart Chilton.[215] In the years since the Panther/Coscia civil action settled the CFTC has become very active in policing

207. 7 U.S.C. § 9(3) (2018).

208. Prohibition on the Employment, or Attempted Employment, of Manipulative and Deceptive Devices and Prohibition on Price Manipulation, 76 Fed. Reg. 41,398, 41,407 (July 14, 2011).

209. *See* Ploss v. Kraft Foods Grp., Inc., 197 F. Supp. 3d 1037, 1060 (N.D. Ill. 2016) ("Because the new Dodd-Frank provisions were not intended to affect Section 9(a)(2), the four-part test that courts have adopted for Section 9(a)(2) still stands.").

210. U.S. Commodity Futures Trading Comm'n, Anti-Manipulation and Anti-Fraud Final Rules, https://www.cftc.gov/sites/default/files/idc/groups/public/@newsroom/documents/file/amaf_factsheet_final.pdf (last visited Sept. 15, 2019).

211. *See, e.g.*, 7 U.S.C. § 13a-1(d)(1)(B) (2018).In practice, the number of litigated Section 9(a)(2) cases is "vanishingly small." Goelman, *supra* note 158.

212. *See In re* Panther Energy Trading LLC, CFTC Docket No. 13-26 (July 13, 2013); COVINGTON & BURLING LLP, DERIVATIVES ENFORCEMENT OUTLOOK: 2016 1 (Feb. 4, 2016), https://www.cov.com/-/media/files/corporate/publications/2016/02/derivatives_enforcement_outlook_2016.pdf (identifying *Panther* as the first such enforcement action).

213. *See In re* Panther Energy Trading LLC, CFTC Docket No. 13-26 (July 22, 2013), https://cftc.gov/sites/default/files/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfpantherorder072213.pdf.

214. *Id.* at 5–6.

215. *See* Bart Chilton, Comm'r, CFTC, Concurring Statement of Comm'r Bart Chilton in the Matter of Panther Energy Trading LLC and Michael J. Coscia, (July 22, 2013), https://www.cftc.gov/PressRoom/SpeechesTestimony/chiltonstatement072213 (stating that spoofing conduct in the case "warrants the imposition of a much more significant trading ban to protect markets and consumers, and to act as a sufficient deterrent to other would-be wrongdoers.").

spoofing and layering.[216]

The CFTC has not acted alone. Current CFTC Director of Enforcement James McDonald has observed that "[a] robust combination of criminal and regulatory enforcement in our markets is critical to achieving optimal deterrence,"[217] and the CFTC and DOJ have a history of cooperating to prosecute spoofing and other forms of manipulation.[218] Cooperation between a CFTC regional office and the U.S. Attorney's Office in Chicago resulted in Coscia's indictment and conviction on six counts of spoofing and six counts of commodities fraud.[219] Coscia became the first person to be convicted of spoofing following a trial, his conviction was affirmed by the Seventh Circuit in 2017,[220] and the Supreme Court denied certiorari in 2018.[221] More generally, spoofing was a high priority of the Securities and Financial Fraud Unit of the DOJ's Fraud Section in 2018 and that focus is expected to continue.[222] In fiscal year 2018, fourteen filed CFTC enforcement actions were followed within seven days by the filing of parallel, cooperative criminal actions.[223] This was the highest number of parallel CFTC/DOJ actions filed in any fiscal year during the period 2010 to 2018.[224]

The DOJ's anti-spoofing arsenal is expansive but mostly untested. First, any knowing violation of CEA Section 4c(a)(5)(C) or Section 9(a)(2) can be prosecuted by the DOJ as a felony punishable by up to ten years in prison and a fine of not more than $1 million per count.[225] The same four-part test applicable in civil cases commenced under

---

216. Anne M. Termine, *"Flash Crash" Derivatives Trader Settles Spoofing Case*, COVINGTON & BURLING LLP: FIN. SERVS. (Nov. 24, 2016), https://www.covfinancialservices.com/2016/11/flash-crash-derivatives-trader-settles-spoofing-case/ ("[S]ince bringing its first spoofing enforcement action in 2013, the CFTC has been very active in this area.").

217. *Speech of Enforcement Director James M. McDonald Regarding Enforcement Trends at the CFTC*, *NYU School of Law: Program on Corporate Compliance & Enforcement*, CFTC SPEECHES & TESTIMONY (Nov. 14, 2018), https://www.cftc.gov/PressRoom/SpeechesTestimony/opamcdonald1.

218. *See* Behnam, Remarks, *supra* note 60 (noting "aggressive and coordinated enforcement approach" between DOJ and CFTC in spoofing cases); Paul J. Pantano, Jr. et al., *New CFTC Administration Continues Hard Line Against Spoofing*, WILKIE, FARR & GALLAGHER, LLP (Apr. 12, 2017), https://www.willkie.com/~/media/Files/Publications/2017/04/New_CFTC_Administration_Continues_Hard_Line_Against_Spoofing.pdf (describing coordination between DOJ and CFTC).

219. United States v. Coscia, 177 F. Supp. 3d 1087, 1090 (N.D. Ill. 2016), *aff'd*, 866 F.3d 782 (7th Cir. 2017).

220. United States v. Coscia, 866 F.3d 782 (7th Cir. 2017).

221. United States v. Coscia, 138 S. Ct. 1989 (2018). Coscia moved for a new trial following the denial of certiorari, but that motion was denied in 2019. *See* Mem. Op., United States v. Coscia, No. 14-CR-551 (N.D. Ill. May 15, 2019).

222. Kevin Muhlendorf & Madeline Cohen, *Impressive Results from DOJ's Fraud Section in 2018*, LAW360 (Jan. 8, 2019, 5:53 PM), https://www.law360.com/articles/1116578/impressive-results-from-doj-fraud-section-in-2018.

223. U.S. COMMODITY FUTURES TRADING COMM'N, 2018 ANNUAL REPORT ON THE DIVISION OF ENFORCEMENT 13 (Nov. 2018), https://www.cftc.gov/sites/default/files/2018-11/ENFAnnualReport111418_0.pdf.

224. *Id.* Between 2015 and 2019 the DOJ brought at least 12 spoofing cases against 16 defendants. Luke Cass, *Market Manipulation in Milliseconds: Spoofing in Commodity Futures Exchanges*, QUARLES & BRADY (Oct. 1, 2019), https://www.quarles.com/publications/market-manipulation-in-milliseconds-spoofing-in-commodity-futures-exchanges/. By January 2019 the DOJ had charged only individuals for spoofing-related crimes. No organizations had yet been prosecuted. Lanny Breuer & Laura Brookover, *Zhao's Spoofing Plea Deal Telegraphs More to Come in 2019*, LAW360 (Jan. 22, 2019, 12:59 PM), https://www.law360.com/articles/1120306/zhao-s-spoofing-plea-deal-telegraphs-more-to-come-in-2019.

225. 7 U.S.C. § 13(a)(2) (2018).

Section 9(a)(2) also applies in criminal cases.[226] Second, the DOJ has prosecuted spoofing in commodity markets under 18 U.S.C. § 1343, which criminalizes wire fraud,[227] and 18 U.S.C. § 371, which criminalizes conspiracy to commit wire fraud.[228] Third, the DOJ can use 18 U.S.C. § 1348, which has criminalized securities and commodities fraud[229] since 2002 and 2009, respectively, and is modeled on the federal mail and wire fraud statutes.[230]

Fourth, most recently the DOJ aggressively added the Racketeer Influenced and Corrupt Organizations Act (RICO)[231] to its toolbox. In August 2019 three JPMorgan Chase traders who allegedly placed thousands of spoof orders on COMEX and New York Mercantile Exchange, Inc. (NYMEX) during the period May 2008 to August 2016 were indicted in the Northern District of Illinois on multiple counts, including a RICO conspiracy count.[232] White collar criminal cases involving RICO charges are rare, and this indictment included the first RICO charges in a spoofing or layering case[233] and the first RICO charges against any Wall Street traders since the mid-1980s.[234] The 2019 indictment essentially alleges that the three traders converted the bank's precious metals trading desk into a criminal enterprise. A RICO charge may be easier for the government to prove than a pure spoofing charge because jurors "are likely to have a more intuitive understanding of criminal enterprises than of spoofing,"[235] so if the prosecution is successful then this case may serve as a template in future spoofing cases.[236]

---

226. United States v. Reliant Energy Servs., 420 F. Supp. 2d 1043, 1056 (N.D. Cal. 2006).

227. 18 U.S.C. § 1343 (2018); Henning, *supra* note 74.

228. 18 U.S.C. § 371 (2018).

229. 18 U.S.C. § 1348 (2018). *See, e.g.*, Complaint, United States v. Milrud, No. 15-cr-00455 (D.N.J. Jan. 12, 2015) (alleging criminal spoofing of securities markets). Section 1348 has two subsections which establish that a federal commodities fraud violation may occur in two distinct ways. The two sections have been interpreted to establish different elements of the offense. *See* United States v. Mahaffey, 693 F.3d 113, 125 (2d Cir. 2012); Jodi Misher Peikin & Justin Roller, *"Spoofing" as Fraud: A Novel and Untested Theory of Prosecution*, 26 BUS. CRIMES BULL. (Apr. 2019), http://www.lawjournalnewsletters.com/2019/04/01/spoofing-as-fraud-a-novel-and-untested-theory-of-prosecution/?slreturn=20190705142915.

230. United States v. Coscia, 866 F.3d 782, 799 (7th Cir. 2017).

231. 18 U.S.C. §§ 1961–68 (2018).

232. *See* Indictment, United States v. Smith, No. 19 CR 669 (N.D. Ill. Aug. 22, 2019); Tom Schoenberg & David Voreacos, *JPMorgan's Metals Desk Was a Criminal Enterprise, U.S. Says*, BLOOMBERG (Sept. 16, 2019, 1:47 PM), https://www.bloomberg.com/news/articles/2019-09-16/jpmorgan-s-metals-desk-was-a-criminal-enterprise-u-s-says. The indictment's foundation was data analysis and the testimony of numerous cooperating witnesses. Katie Benner, *3 From JPMorgan Accused in Scheme to Game Precious Metals Market*, N.Y. TIMES (Sept. 16, 2019), https://www.nytimes.com/2019/09/16/business/jpmorgan-trading-fraud.html. In November 2019 the government filed a superseding indictment that charged a fourth individual with RICO violations in this spoofing scheme. Press Release, U.S. Dep't of Justice, Superseding Indictment Charges Former Precious Metals Salesman with Racketeering Conspiracy (Nov. 15, 2019), https://www.justice.gov/opa/pr/superseding-indictment-charges-former-precious-metals-salesman-racketeering-conspiracy.

233. *DOJ Charges Three Traders Under RICO in Alleged Spoofing Scheme*, SHEARMAN & STERLING (Sept. 24, 2019), https://www.lit-wc.shearman.com/DOJ-Charges-Three-Traders-Under-RICO-In-Alleged-Spoofing-Scheme.

234. Peter J. Henning, *Racketeering Law Makes its Return to Wall Street*, N.Y. TIMES: DEALBOOK (Oct. 24, 2019, 6:00 AM), https://www.nytimes.com/2019/10/24/business/dealbook/racketeering-wall-street.html.

235. *Legal Alert: DOJ and CFTC Team up on Spoofing Enforcement*, EVERSHEDS SUTHERLAND (Sept. 26, 2019), https://us.eversheds-sutherland.com/NewsCommentary/Legal-Alerts/225170/Legal-Alert-DOJ-and-CFTC-team-up-on-spoofing-enforcementDOJ-and-CFTC-team-up-on-spoofing-enforcement.

236. *See* Jody Godoy & Jon Hill, *Feds' Spoofing Case Against JPMorgan Traders Turns Heads*, LAW360 (Sept. 17, 2019, 9:17 PM), https://www.law360.com/securities/articles/1199949/feds-spoofing-case-against-

Any potential future use of RICO no doubt will be undertaken in tandem with other criminal statutes, such as Section 1348. Federal courts have broadly interpreted Section 1348[237] since its original enactment as part of the Sarbanes-Oxley Act,[238] and this expansive approach has encouraged the DOJ to use some combination of criminal provisions in the spoofing cases it chooses to prosecute. For example, in the 2019 RICO case, defendants were indicted on numerous additional counts, including wire fraud and commodities fraud under Section 1348.[239] Earlier, in November 2018 defendant spoofers Kamaldeep Gandhi[240] and Krishna Mohan[241] both pleaded guilty to conspiring to commit wire fraud, commodities fraud, and spoofing. In November 2016 Sarao pleaded guilty to wire fraud and spoofing.[242] And in November 2015, Coscia was convicted under CEA Section 4c(a)(5)(C), CEA Section 9(a)(2) (which makes it unlawful to manipulate or attempt to manipulate the price of a commodity or future), and 18 U.S.C. § 1348.[243] In other spoofing cases the DOJ has chosen to charge only a violation of Section 9(a)(2).[244] Generally, however, in criminal spoofing cases a "broader menu of charges allows the DOJ to introduce a wider array of evidence at trial, and gives the jury more options to convict."[245]

There is no doubt that spoofing can be charged as commodities fraud.[246] But prior to the enactment of the DFA the government did not prosecute any spoofing or layering under the wire or commodities fraud statutes. The situation has changed post-DFA. At least four advantages accrue to the DOJ by using the wire fraud statute in spoofing cases. First, the statute broadly covers conduct designed to mislead and is less closely tied to order cancellation than is the CEA.[247] Second, whereas the Financial Institutions Reform Recovery and Enforcement Act (FIRREA)[248] extended the statute of limitations to ten

---

jpmorgan-traders-turns-heads?nl_pk=8b240a19-db95-4ea6-91e0-b797c8600de2&utm_source=newsletter&utm_medium=email&utm_campaign=securities.

237. Sandra Moser & Justin Weitz, *18 U.S.C. § 1348—A Workhorse Statute for Prosecutors*, 66 DOJ J. FED. L. & PRAC. 111, 111 (2018).

238. Sarbanes-Oxley Act, Pub. L. 107-204, 116 Stat. 745 (2002).

239. *See* Indictment, United States v. Smith, No. 19 CR 669 (N.D. Ill. Aug. 22, 2019).

240. *See* Plea Agreement, United States v. Gandhi, Crim. No. 4:18-cr-00609 (S.D. Tex. Nov. 2, 2018).

241. *See* Plea Agreement, United States v. Mohan, Crim. No. 4:18-cr-00610 (S.D. Tex. Nov. 6, 2018).

242. *See* Press Release, U.S. Dep't of Justice, Futures Trader Pleads Guilty to Illegally Manipulating the Futures Market in Connection with 2010 "Flash Crash" (Nov. 9, 2016), https://www.justice.gov/opa/pr/futures-trader-pleads-guilty-illegally-manipulating-futures-market-connection-2010-flash.

243. *See* United States v. Coscia, 177 F. Supp. 3d 1087 (N.D. Ill. 2016), *aff'd*, 866 F.3d 782 (7th Cir. 2017).

244. *See, e.g.*, Information, United States v. Flaum, No. 19 CR 338 (BMC) (E.D.N.Y. July 25, 2019). The defendant pleaded guilty to this charge. Jon Hill, *Ex-Bear Stearns, Scotia Trader Admits to Spoofing Scheme*, LAW360 (July 25, 2019, 9:38 PM), https://www.law360.com/articles/1182061/ex-bear-stearns-scotia-trader-admits-to-spoofing-scheme.

245. Mark Finucane et al., *Spoofing Enforcement Heats up with Recent Filing Wave and New Legal Charges*, COVINGTON & BURLING LLP: FIN. SERVS. (Oct. 8, 2019), https://www.covfinancialservices.com/2019/10/spoofing-enforcement-heats-up-with-recent-filing-wave-and-new-legal-charges/.

246. *See, e.g.*, United States v. Flotron, No. 3:17-cr-00220 (JAM), 2018 WL 1401986, at *1 (D. Conn. Mar. 20, 2018) (denying motion to dismiss superseding indictment).

247. Henning, *supra* note 74.

248. Financial Institutions Reform, Recovery & Enforcement Act (FIRREA), Pub. L. 101-73, 103 Stat. 183 (1989).

years for a wire or mail fraud that affected a financial institution[249]—and this language has been broadly interpreted by courts[250]—FIRREA did not extend the limitations period for securities or commodities fraud (six years)[251] or spoofing violations under the CEA (five years).[252] Third, the wire fraud statute provides for harsher penalties than do both CEA Section 4c(a)(5)(C) and the commodities fraud statute—the former authorizes imprisonment of up to 30 years for wire fraud affecting a financial institution,[253] triple what the latter two laws provide. Fourth, the wire fraud statute, which criminalizes any scheme to defraud that affects interstate or foreign commerce, has a broader jurisdictional reach than does the CEA.[254]

While the wire fraud statute has obvious advantages for the DOJ, it has not always been clear that the statute applies in a spoofing or layering case. The government has obtained wire fraud guilty pleas from defendants in multiple spoofing cases post-DFA,[255] but until October 2019 no court had held that spoofing constitutes wire fraud. That month the federal court in the Northern District of Illinois issued a persuasive and well-reasoned opinion holding that a scheme to defraud by placing spoof orders can constitute wire fraud. The opinion, issued in *United States v. Vorley*[256]—the first spoofing case to proceed solely under the wire fraud statute[257]—denied defendants' motion to dismiss their indictment[258] and rejected a series of arguments contending that the wire fraud statute is inapplicable.

Defendants' primary argument in *Vorley* was that whereas wire fraud requires the making of an express misrepresentation the indictment did not allege one.[259] This argument was properly rejected because wire fraud does not require proof of a false statement. Such statements are proscribed, but so is "the omission or concealment of material information, even absent an affirmative duty to disclose, if the omission was intended to induce a false belief and action to the advantage of the schemer and the disadvantage of the victim."[260] The proscribed conduct thus includes implied misrepresentations.[261] Wire fraud does require proof of a scheme to defraud,[262] but the

249. *See* 18 U.S.C. § 3293(2) (2018).

250. Greg Deis et al., *Traders at Risk of DOJ Wire Fraud Charges for Spoofing*, LAW360 (May 9, 2019, 4:46 PM), https://www.law360.com/articles/1155994/traders-at-risk-of-doj-wire-fraud-charges-for-spoofing.

251. *See, e.g.*, 18 U.S.C. § 3301 (2018) (providing six year statute of limitations for securities fraud).

252. 18 U.S.C. § 3282 (2018).

253. 18 U.S.C. § 1343 (2018).

254. *See* CLIFFORD CHANCE, OVERVIEW OF UNITED STATES AND UNITED KINGDOM DERIVATIVE AND COMMODITY MARKET ENFORCEMENT REGIMES 6 (Dec. 2016), https://www.aima.org/uploads/assets/uploaded/17f40585-6fee-4896-9e80e1f45fc69514.pdf (noting that DOJ is often able to establish jurisdiction under the wire fraud statute "despite the fact that the conduct occurred largely, if not entirely, overseas").

255. *See, e.g.*, Plea Agreement, United States v. Gandhi, Crim. No. 4:18-cr-00609 (S.D. Tex. Nov. 2, 2018); Plea Agreement, United States v. Edmonds, No. 3:18cr239 (RNC) (D. Conn. Oct. 9, 2018); Plea Agreement, United States v. Liew, No. 17-CR-001 (N.D. Ill. June 1, 2017) (each involving post-DFA guilty pleas to wire fraud in spoofing cases).

256. United States v. Vorley, No. 18 CR 00035 (N.D. Ill. Oct. 21, 2019).

257. Greg Deis et al., *Traders at Risk of DOJ Wire Fraud Charges for Spoofing*, LAW360 (May 9, 2019, 4:46 PM), https://www.law360.com/articles/1155994/traders-at-risk-of-doj-wire-fraud-charges-for-spoofing.

258. *Vorley*, Mem. Op., at 37.

259. *Id*. at 5.

260. United States v. Weimert, 819 F.3d 351, 355 (7th Cir. 2016).

261. *Vorley*, Mem. Op., at 18.

Seventh Circuit previously held in *Coscia* that a spoofing scheme can constitute a scheme to defraud under the commodities fraud statute.[263] In *Vorley*, where the indictment alleged that defendants, as part of their spoofing scheme, intended to cancel their orders prior to execution, proscribed conduct was alleged.[264] As the district court noted in *Vorley*, "[i]f spoofing can be a scheme to defraud under Section 1348(1)—and it can, the Seventh Circuit has held—it can be a scheme to defraud under the wire fraud statute as well."[265]

Defendants also argued in *Vorley* that even if omissions suffice for wire fraud liability, they do so only where the alleged fraudster owes a fiduciary duty to disclose the omitted information.[266] Again, this argument was incorrect as matter of law. The existence of a fiduciary, regulatory, or statutory duty to disclose material information is not required to render an omission actionable under either the mail or wire fraud statutes.[267] Defendants further argued that the wire fraud statute was unconstitutionally vague as applied to their trading conduct because that conduct predated the *Coscia* prosecution and therefore they had no notice that spoofing would be deemed to constitute wire fraud.[268] This contention was unavailing because the mail and wire fraud statutes can be applied to new factual scenarios,[269] such as spoofing and layering. The government's successful opposition to the motion to dismiss the indictment in *Vorley* no doubt will embolden it to make further use of the wire fraud statute in spoofing and layering cases.

IV. SPOOFING AND LAYERING IN THE SECURITIES MARKETS

Spoofing and layering are not restricted to futures markets, or even to financial markets. They also occur in securities markets[270] and energy markets.[271] However, the federal securities statutes, unlike the CEA, do not expressly prohibit spoofing or layering, even after the enactment of the DFA in 2010.[272] Instead, the SEC typically has tackled

262. The essential elements of wire fraud are: (1) a scheme to defraud, (2) money or property as the object of the scheme, and (3) use of the wires to further the scheme. United States ex rel. O'Donnell v. Countrywide Home Loans, Inc., 822 F.3d 650, 657 (2d Cir. 2016).

263. United States v. Coscia, 866 F.3d 782, 796–97 (7th Cir. 2017).

264. *Vorley*, Mem. Op., at 7.

265. *Id*. at 15.

266. *Id*. at 24.

267. *Id.*

268. *Id.* at 33–34.

269. *Vorley*, Mem. Op., at 34.

270. *See, e.g.*, Bradley Hope, *As 'Spoof' Trading Persists, Regulators Clamp Down*, WALL ST. J. (Feb. 22, 2015,10:34 PM), https://www.wsj.com/articles/how-spoofing-traders-dupe-markets-1424662202 (noting that spoofing "has long been used to manipulate prices of anything from stocks to bonds to futures"). *But cf.* Stanislav Dolgopolov, *Securities Fraud Embedded in the Market Structure Crisis: High-Frequency Traders as Primary Violators*, 9 WM. & MARY BUS. L. REV. 551, 588–89 (2018) (suggesting that spoofing and layering "seem to be confined to the futures and commodities space").

271. *See* Agency for the Cooperation of Energy Regulators, *Guidance Note 1/2019 on the Application of Article 5 of Remit on the Prohibition of Market Manipulation: Layering and Spoofing in Continuous Wholesale Energy Markets* 6 (Mar. 2019), https://documents.acer-remit.eu/wp-content/uploads/Guidance-Note_Layering-v7.0-Final-published.pdf (describing spoofing and layering in energy markets).

272. *See* Robert J. Anello & Richard F. Albert, *'Spoofing'—the New Frontier for Criminal Prosecution?*, N.Y. L.J. (Dec. 1, 2015), https://www.maglaw.com/publications/articles/2015-12-02-spoofing-the-new-frontier-for-criminal-prosecution/_res/id=Attachments/index=0/Anello%20Albert%2012.1.pdf ("[T]he amendments to

these trading practices by characterizing them as prohibited fraud or manipulation.[273] The SEC has been investigating and prosecuting alleged spoofing in the securities markets at least since the early 2000s,[274] albeit with little clarity as to which specific trading conduct it believes is actionable.[275] The agency primarily utilizes Exchange Act Section 9(a)(2),[276] Exchange Act Section 10(b),[277] and Rule 10b-5[278] in its spoofing and layering enforcement actions.[279] Those provisions are discussed separately below.

A. Exchange Act Section 9(a)(2)

The SEC's spoofing and layering cases often invoke Section 9(a)(2),[280] which, prior to 2010, only applied to exchange-traded securities.[281] The statute currently makes it unlawful "[t]o effect . . . a series of transactions . . . creating actual or apparent active trading in [a security], or raising or depressing the price [of a security], for the purpose of inducing the purchase or sale of such security by others."[282] This provision appears in the Exchange Act's section on "Manipulation of Security Prices," and was likely designed to target such practices as wash sales, in which consummated trades are used to mislead other market participants.[283] The SEC utilizes Section 9(a)(2) by taking the position that in spoofing and layering cases, where there may be no purchase or sale,[284] cancelled

---

the CEA prohibit spoofing only in the futures and derivatives markets. No parallel provision exists under the securities statutes.").

273. *See* Robert Houck et al., *Comparing SEC and CFTC Market Abuse Regimes*, LAW360 (Mar. 1, 2016, 10:56 AM), https://www.law360.com/articles/765248/comparing-sec-and-cftc-market-abuse-regimes ("[T]he Exchange Act does not specifically prohibit spoofing. In the breach, the SEC has principally targeted spoofing in the securities markets under its existing anti-fraud and anti-manipulation authority.").

274. *See* SEC v. Shpilsky, Lit. Release No. 17221, 2001 WL 1408740 (S.E.C. Nov. 5, 2001) (SEC files enforcement actions against six individuals for spoofing); Clifford C. Histed, *A Look at the 1st Criminal 'Spoofing' Prosecution: Part 1*, LAW360 (Apr. 20, 2015, 12:01 PM), https://www.law360.com/articles/645167/a-look-at-the-1st-criminal-spoofing-prosecution-part-1 (noting that "U.S. securities regulators have been investigating alleged security market spoofing since at least early 2000").

275. *See* Paul Hinton & Shaun Ledgerwood, *Coscia Verdict Highlights Different Approaches to High-Frequency Trading*, Securities Litig., AM. BAR ASS'N (Nov. 12, 2015), https://www.americanbar.org/groups/litigation/committees/securities/practice/2015/coscia-verdict.html ("The SEC's enforcement record provides little guidance on what high-frequency trading practices constitute abuse, manipulation, or spoofing.").

276. 15 U.S.C. § 78i (2018).

277. *Id.*

278. 17 C.F.R. § 210.10b-5 (2019).

279. To a lesser extent the SEC also utilizes Section 17(a) of the Securities Act, 15 U.S.C. § 77q(a) (2018). LAW SURROUNDING SPOOFING, *supra* note 154, at 10; CLIFFORD CHANCE, *supra* note 254, at 30 n.46. A recent example of the SEC's use of Section 17(a) in a layering case is SEC v. Lek Sec. Corp., 276 F. Supp. 3d 49 (S.D.N.Y. 2017). A more recent example of the SEC's combined use of Sections 9(a)(2), 10(b), and 17(a) in a spoofing case is SEC v. Chen, Case No. 1:19-cv-12127-WGY (D. Mass. Oct. 15, 2019). *See* Complaint, at 53–56 (alleging all three claims); Reenat Sinay, *SEC Targets 18 Chinese Traders in $31M 'Spoofing' Scheme*, LAW360 (Oct. 16, 2019, 8:34 PM), https://www.law360.com/securities/articles/1210284/sec-targets-18-chinese-traders-in-31m-spoofing-scheme (explaining that alleged spoofing scheme in *Chen* took place from August 2013 to June 2019).

280. LAW SURROUNDING SPOOFING, *supra* note 154, at 11.

281. *Stock Market Manipulation*, *supra* note 40, at 117.

282. 15 U.S.C. § 78i(a)(2) (2018).

283. LAW SURROUNDING SPOOFING, *supra* note 154, at 11.

284. *See* Andrew Verstein, *Insider Tainting: Strategic Tipping of Material Nonpublic Information*, 112 NW. U. L. REV. 725, 771 n.200 (2018) ("Effective spoofing may therefore involve no purchase or sale.").

(unconsummated) orders constitute transactions that create actual or apparent active trading.[285] This position is subject to doubt,[286] but it has not been regularly tested in litigation.[287] The SEC may feel unencumbered in its reliance on Section 9(a)(2) because courts have done a remarkably poor job delineating the statute's contours. As noted in one recent critique of the case law on manipulation, "there has been a consistent failure to substantively analyze, precisely identify, or even define the improper purpose required by [Section 9(a)(2)] or discuss what evidence would satisfactorily prove it."[288]

B. Exchange Act Section 10(b)

The SEC's spoofing and layering cases also invoke the anti-manipulation and anti-fraud provisions of Exchange Act Section 10(b), which prohibits manipulative or deceptive devices or contrivances in violation of such SEC rules as Rule 10b-5.[289] Section 10(b) may be applicable in these cases, insofar as spoofing and layering can be characterized as artificially affecting the price of a security, sending a false pricing signal, or deceiving market participants about supply and demand.[290] Nevertheless, the SEC's reliance on Section 10(b) may be even more thorny than its reliance on Section 9(a)(2), in light of the federal circuit split, described below, concerning open market manipulation.

Manipulative conduct is often divided into two categories: (1) traditional closed market manipulation and (2) open market manipulation. The former category encompasses conduct, such as a wash sale, that is explicitly proscribed by the Exchange Act. In these closed market activities a single person or entity controls both sides of a transaction in order to create a false appearance of legitimate market activity.[291] The latter category is much more controversial. The federal courts are plagued by a series of splits concerning open market manipulation, including disagreement as to whether such manipulation exists, whether it is potentially unlawful under Section 10(b), and how it should be defined.[292] Nevertheless, such manipulation is often understood to encompass activity on the open market that is facially legitimate—it involves no objectively fraudulent or deceitful acts—but when examined in context may constitute manipulative conduct.[293]

---

285. *See, e.g.*, *In re* Biremis Corp., File No. 3-15136, Exchange Act Release No. 68456 (SEC Dec. 18, 2012) (applying Section 9(a)(2) in case involving layering in securities markets).

286. *See, e.g.*, Michael A. Asaro & Richard R. Williams, Jr., *'Spoofing': The SEC Calls It Manipulation, but Will Courts Agree?*, N.Y. L.J. (July 17, 2017), https://www.akingump.com/images/content/5/9/v2/59261/Asaro.Williams.NYLJ.pdf ("[I]t is worth noting that § 9(a)(2) governs 'transactions in any security.' Arguably, bids and offers are not 'transactions' until they are executed." (citations omitted)).

287. Some authority supports the SEC's position. *See* Spicer v. Chicago Bd. Options Exch., Inc., No. 88 C 2139, 1990 WL 172712, at *2 (N.D. Ill. Oct. 30, 1990), *aff'd*, 977 F.2d 255 (7th Cir. 1992) (stating that placement of bids qualifies as effecting a series of transactions).

288. *Stock Market Manipulation*, *supra* note 40, at 115.

289. 15 U.S.C. § 78j (2018).

290. LAW SURROUNDING SPOOFING, *supra* note 154, at 11. *See also* SEC v. Lek Sec. Corp., 276 F. Supp. 3d 49, 60 (S.D.N.Y. 2017) ("The SEC has consistently found layering and spoofing activity to violate § 10(b) and Rule 10b-5.").

291. Santa Fe Indus., Inc. v. Green, 430 U.S. 462, 476 (1977).

292. *Stock Market Manipulation*, *supra* note 40, at 122–23.

293. Fletcher, *supra* note 129, at 484; Maxwell K. Multer, *Open-Market Manipulation under SEC Rule 10b-5 and its Analogues: Inappropriate Distinctions, Judicial Disagreement and Case Study: FERC's Anti-*

All courts agree that one of the elements of a manipulation claim under Rule 10b-5 is the existence of a manipulative act. For those courts that do recognize open market manipulation as an offense, the critical issue is resolving what conduct constitutes such an act. The SEC's broad view is that open market activities equate to market manipulation if the trader's sole intent in placing an order is to move the price of stock. The D.C. Circuit agreed with the SEC in 2001[294] and again in 2015.[295] A split developed when the Second[296] and Third[297] Circuits rejected the sole intent test and adopted a more restrictive "inaccurate information" test. Pursuant to the latter the alleged manipulator, in addition to acting with manipulative intent, must inject inaccurate information into the market such that it does not reflect the natural interplay of supply and demand.[298]

The waters were further muddied by two subsequent district court decisions[299] which undermined the inaccurate information test by conflating it with the sole intent test. These decisions held that buying a stock solely to move the price contaminates the market with inaccurate information by sending a false signal that the buyer has legitimate economic motives for the transaction.[300] The key outcome of these district court decisions is that "sole intent" invariably equates to "inaccurate information."[301]

Overall, it remains unclear what the SEC or a private plaintiff must prove in order to establish open market manipulation under Section 10(b) and Rule 10b-5. The lack of clarity echoes the conclusion of one commentator 40 years ago that the law governing manipulation "has become an embarrassment—confusing, contradictory, complex, and unsophisticated."[302] This is problematic for cases involving spoofing and layering because such conduct is a subset of open market manipulation.[303] While most of the SEC's modern spoofing cases have settled without being tested at trial, and the settlements have been criticized for being unduly lenient,[304] this circuit conflict

---

Manipulation Rule, 39 SEC. REG. L.J. 97, 97 (2011).

294. Markowski v. SEC, 274 F.3d 525, 528–29 (D.C. Cir. 2001).

295. Koch v. SEC, 793 F.3d 147, 156 (D.C. Cir. 2015).

296. ATSI Commc'ns, Inc. v. Shaar Fund, Ltd., 493 F.3d 87, 101 (2d Cir. 2007). *ATSI* was reaffirmed by the Second Circuit in Fezzani v. Bear, Stearns & Co., Inc., 777 F.3d 566, 571–72 (2d Cir. 2015).

297. GFL Advantage Fund, Ltd. v. Colkitt, 272 F.3d 189, 205 (3d Cir. 2001).

298. *ATSI*, 493 F.3d at 100; *GFL Advantage*, 272 F.3d at 205. *But cf. Stock Market Manipulation*, *supra* note 40, at 120–21 (arguing that Second and Third Circuits are no longer on same side of split).

299. *In re* Amaranth Nat. Gas Commodities Litig., 587 F. Supp. 2d 513, 534 (S.D.N.Y. 2008); SEC v. Kwak, No. 3:04-cv-1331, 2008 WL 410427, at *4 (D. Conn. Feb. 12, 2008).

300. *In re Amaranth*, 587 F. Supp. 2d at 534; *Kwak*, 2008 WL 410427, at *4.

301. David L. Kornblau et al., *Market Manipulation and Algorithmic Trading: The Next Wave of Regulatory Enforcement?*, 43 SEC. REG. & L. REP. 369, 370–71 (2012), https://www.cov.com/-/media/files/corporate/publications/2012/02/market_manipulation_and_algorithmic_trading.pdf.

302. Edward T. McDermott, *Defining Manipulation in Commodity Futures Trading: The Futures "Squeeze,"* 74 NW. U. L. REV. 202, 205 (1979).

303. *See* Andrew Bauer & Sina Mansouri, *Criminal and Regulatory Enforcement of Market Manipulation Spikes*, ARNOLD & PORTER (July 21, 2016), https://www.arnoldporter.com/en/perspectives/publications/2016/07/2016_07_22_criminal_and_regulatory_enfor_130999 ("Spoofing and layering—both forms of open-market manipulation—continue to occupy the attention of regulators and commentators alike."); Robert J. Anello & Richard F. Albert, *'Spoofing'—the New Frontier for Criminal Prosecution?*, N.Y. L.J. (Dec. 1, 2015), https://www.maglaw.com/publications/articles/2015-12-02-spoofing-the-new-frontier-for-criminal-prosecution/_res/id=Attachments/index=0/Anello%20Albert%2012.1.pdf (referring to spoofing as open market manipulative conduct).

304. *See* Sanders, *supra* note 40, at 537 ("A review of the SEC's spoofing enforcement actions to date

inevitably will require resolution.[305]

The ambiguity concerning Section 10(b)'s application to open market manipulation also impacts spoofing and layering cases pursued by the CFTC. Recall that CEA Section 6(c)(1) and Rule 180.1 were modeled on Exchange Action Section 10(b) and Rule 10b-5, and the legislative history of Section 6(c)(1) suggests that Congress intended to provide the CFTC with the same authority to pursue manipulation that the SEC already had under Section 10(b). In this situation, the unsettled state of the law concerning open market manipulation in securities cases spills over to commodity markets.[306] If specific intent is required to establish open market manipulation under Section 10(b) and Rule 10b-5, then arguably specific intent also is required to establish scienter under CEA Section 6(c)(1) and Rule 180.1 in manipulation cases predicated on open market commodity transactions—contrary to the prevailing view that Rule 180.1 reduced the scienter standard from specific intent to recklessness in such cases.[307]

V. SPOOFING, LAYERING, AND CRYPTOCURRENCY

Cryptocurrencies or virtual currencies[308]—including Bitcoin—provide a stark example of the obstacles inherent in policing spoofing and layering. Bitcoin was invented in 2009, has a futures market, and serves as a bellwether for the broader cryptocurrency market. In late 2017 Bitcoin rose to a record high of almost $20,000 per coin. Just a few weeks later it had plunged to roughly a third of that value,[309] and by November 2018 it had declined to $4000.[310] This volatility has multiple causes, one of which probably is manipulation. A 2018 study concluded that price manipulation likely caused a prior huge spike in the U.S. dollar-Bitcoin exchange rate in 2013[311] and such manipulation "remains quite feasible today."[312] More generally, spoofing has been characterized as rampant on some cryptocurrency trading platforms,[313] and in May 2018 the DOJ announced that it

shows that punishments have been quite lenient.").

305. The Supreme Court ducked an opportunity to resolve the circuit split in 2016. *See* Koch v. SEC, 793 F.3d 147 (D.C. Cir. 2015), *cert. denied*, 136 S. Ct. 1492 (2016).

306. *See* Fletcher, *supra* note 129, at 485–86 ("The divergent approaches of the [SEC and CFTC] and the courts add an uncomfortable level of unpredictability to the markets, thus muddying an already chaotic corner of financial regulation.").

307. *See U.S. Market Manipulation*, *supra* note 166, at 8 ("[T]he CFTC has offered no support for the notion that Congress intended for recklessness to apply in CEA market manipulation cases predicated on open market transactions . . . .").

308. The CFTC interprets the term "virtual currency" to "encompass any digital representation of value that functions as a medium of exchange and any other digital unit of account used as a form of currency." CFTC, Div. of Mkt. Oversight/Div. of Clearing and Risk, Advisory with Respect to Virtual Currency Derivative Product Listings, CFTCLTR No. 18-14, 2018 WL 2387847, at *1 (May 21, 2018).

309. Nathan Reiff, *What is Cryptocurrency Spoofing?*, INVESTOPEDIA (June 6, 2018, 6:00 AM), https://www.investopedia.com/tech/what-cryptocurrency-spoofing/.

310. Tom Zanki, *ICO Mania Cools Amid Regulatory Crackdown, Crypto Plunge*, LAW360 (Nov. 29, 2018, 7:34 PM), https://www.law360.com/articles/1106131/ico-mania-cools-amid-regulatory-crackdown-crypto-plunge.

311. Neil Gandal et al., *Price Manipulation in the Bitcoin Ecosystem*, 95 J. MONETARY ECON. 86, 87 (2018).

312. *Id.* at 96.

313. *See* Lydia Beyoud, *Same Fraud, Different Asset: Spoofing Cases Guide Crypto Probe*, BLOOMBERG BNA (June 15, 2018), http://news.bloomberglaw.com/tech-and-telecom-law/same-fraud-different-asset-spoofing-cases-guide-crypto-probes. *See also* Frances Coppola, *Cryptocurrency Trader Says the Market is*

was probing whether traders are manipulating the price of Bitcoin and other virtual currencies.[314] This investigation—conducted in tandem with the CFTC—encompasses possible spoofing[315] on the CME and elsewhere. By mid-2018 the CME and Chicago Board Options Exchange (CBOE) Futures Exchange were the two U.S. exchanges offering Bitcoin-based futures products,[316] and Nasdaq planned to launch a Bitcoin futures product in 2019.[317]

By 2018, there were over 1500 virtual currencies.[318] One early obstacle to policing spoofing and layering in connection with these currencies has been confusion as to whether they are commodities subject to regulation by the CFTC or securities subject to regulation by the SEC. United States law does not provide for direct, comprehensive federal oversight of Bitcoin or other virtual currency spot[319] or futures markets. In this vacuum, federal regulation of cryptocurrency "has evolved into a multifaceted, multi-regulatory approach."[320] The CFTC was the regulator quickest to assert jurisdiction. In 2014, the CFTC declared virtual currencies to be commodities subject to oversight under its CEA authority,[321] and it subsequently filed a number of cases relating to virtual

---

Manipulated, FORBES (June 1, 2018, 7:10 AM), https://www.forbes.com/sites/francescoppola/2018/06/01/cryptocurrency-trader-says-the-market-is-manipulated/#44753a925cde (describing spoofing as "endemic" on Bitfinex and Coinbase/GDAX).

314. *See* Matt Robinson & Tom Schoenberg, *U.S. Launches Criminal Probe into Bitcoin Price Manipulation*, BLOOMBERG (May 24, 2018, 4:41 AM), https://www.bloomberg.com/news/articles/2018-05-24/bitcoin-manipulation-is-said-to-be-focus-of-u-s-criminal-probe. *See also* Philip Rosenstein, *Crypto Investors Say Bitcoin Manipulation Cost Market $466B*, LAW360 (Oct. 7, 2019, 11:06 PM), https://www.law360.com/articles/1206932/crypto-investors-say-bitcoin-manipulation-cost-market-466b (reporting filing of proposed federal class action alleging that Bitfinex coordinated with Tether to manipulate Bitcoin price).

315. KOBRE & KIM, SUCCESSFULLY FIGHTING A SPOOFING OR MARKET MANIPULATION SUBPOENA FROM THE DOJ OR CFTC (2019), https://kobrekim.com/news/successfully-fighting-a-spoofing-or-market-manipulation-subpoena-from-the-doj-or-the-cftc (noting that U.S. government is investigating spoofing among both traditional and digital currency traders); Sharon Brown-Hruska et al., *Crypto Market Surveillance Has Arrived*, LAW360 (May 25, 2018, 12:42 PM), http://www.nera.com/content/dam/nera/publications/2018/Crypto%20Market%20Surveillance%20Has%20Arrived%20-%20Law360.pdf [hereinafter *Crypto Market Surveillance*].

316. Beyoud, *supra* note 313.

317. *See* Benjamin Bain, *Nasdaq Plans to Pursue Bitcoin Futures Despite Plunging Prices, Sources Say*, BLOOMBERG (Nov. 27, 2018, 4:00 AM), https://www.bloomberg.com/news/articles/2018-11-27/nasdaq-is-said-to-pursue-bitcoin-futures-despite-plunging-prices.

318. CFTC v. McDonnell, 287 F. Supp. 3d 213, 219 (E.D.N.Y. 2018). "Virtual currency" and "cryptocurrency" are essentially synonymous terms. *See id.* at 218.

319. A spot transaction provides for the immediate sale and delivery of a commodity. *See* CFTC v. Erskine, 512 F.3d 309, 317 (6th Cir. 2008). Spot transactions are subject to the CEA's anti-manipulation provisions and CFTC's rules to the extent that their actual or attempted manipulation affects prices in a commodity interest such as a futures contract. *See, e.g.*, 7 U.S.C. § 9, 15 (2018).

320. U.S. COMMODITY FUTURES TRADING COMM'N, CFTC BACKGROUNDER ON OVERSIGHT OF AND APPROACH TO VIRTUAL CURRENCY FUTURES MARKETS (Jan. 4, 2018), https://www.cftc.gov/sites/default/files/idc/groups/public/@customerprotection/documents/file/backgrounder_virtualcurrency01.pdf.

321. *See* Timothy Massad, Chairman, CFTC, Testimony before the U.S. Senate Comm. on Agric., Nutrition and Forestry (Dec. 10, 2014), https://www.cftc.gov/PressRoom/SpeechesTestimony/opamassad-6 [hereinafter Massad, 2014 Testimony]. *See also In re* BFXNA, Inc., CFTC Docket No. 16-19, at 5–6 (June 2, 2016) ("[V]irtual currencies are encompassed in the [CEA] definition and properly defined as commodities."); *In re* Coinflip, Inc., CFTC Docket No. 15-29, at 3 (Sept. 17, 2015) (same).

currency fraud.[322] By early-2019, at least two federal district court decisions supported the Commission's position. In September 2018, the federal district court in Massachusetts held that the cryptocurrencies My Big Coin and Bitcoin categorically meet the definition of a commodity and fall within the jurisdiction of the CFTC even though My Big Coin did not offer futures contracts.[323] This decision was the outcome of a motion to dismiss, and thus might not be persuasive to other courts,[324] but it was consistent with another decision issued several months earlier by the Eastern District of New York.[325]

It is fair to conclude that by 2018, the CFTC had established itself as the primary regulator of virtual currencies in the United States.[326] The CFTC's stance is that its "jurisdiction is implicated when a virtual currency is used in a derivatives contract, or if there is fraud or manipulation involving a virtual currency traded in interstate commerce."[327] However, the CFTC does not have regulatory jurisdiction under the CEA over markets or platforms conducting cash or spot transactions in virtual currencies or over participants on such platforms, which is where most of the trading of Bitcoin and other cryptocurrencies takes place today.[328] Any expansion of the CFTC's regulatory authority to encompass virtual currency spot markets would require statutory amendment of the CEA.[329] In fiscal year 2018, the CFTC's Division of Enforcement brought eleven cases related to virtual currency, representing about 13% of the Division's total number of enforcement actions.[330]

The CFTC shares the virtual currency regulatory space, as it does with regard to a few other products.[331] The SEC has asserted jurisdiction over schemes in which virtual

322. Paul M. Architzel et al., *2018 CFTC Year-In-Review*, WILMERHALE 1, 11 (Jan. 31, 2019), https://www.wilmerhale.com/en/insights/client-alerts/20190131-2018-cftc-year-in-review.

323. CFTC v. My Big Coin Pay, Inc., 334 F. Supp. 3d 492, 496–97 (D. Mass. 2018).

324. *See* J. Paul Forrester & Matthew Bisanz, *Virtual Currencies as Commodities?*, HARV. L. SCH. F. ON CORP. GOV. & FIN. REG. (Dec. 3, 2018), https://corpgov.law.harvard.edu/2018/12/03/virtual-currencies-as-commodities/ (questioning persuasive impact of *My Big Coin Pay*).

325. *See* CFTC v. McDonnell, 287 F. Supp. 3d 213, 228 (E.D.N.Y. 2018) ("Virtual currencies can be regulated by [the] CFTC as a commodity.").

326. Douglas Arend & Jeffry Henderson, *Virtual Currency as Commodity: From Coinflip to McDonnell*, LAW360 (Mar. 18, 2018, 2:16 PM), https://www.law360.com/articles/1023244/virtual-currency-as-commodity-from-coinflip-to-mcdonnell.

327. *See* LABCFTC, *A CFTC Primer on Virtual Currencies* 11 (Oct. 17, 2017), https://www.cftc.gov/sites/default/files/idc/groups/public/documents/file/labcftc_primercurrencies100417.pdf.

328. Timothy G. Massad, *It's Time to Strengthen the Regulation of Crypto-Assets*, BROOKINGS ECON. STUDIES, 32–33 (Mar. 2019), https://www.brookings.edu/wp-content/uploads/2019/03/Timothy-Massad-Its-Time-to-Strengthen-the-Regulation-of-Crypto-Assets-2.pdf.

329. J. Christopher Giancarlo, Chairman, CFTC, Written Testimony before the Senate Banking Comm. (Feb. 6, 2018), https://www.cftc.gov/PressRoom/SpeechesTestimony/opagiancarlo37. By the end of 2019 there had been very little movement on proposed federal legislation to provide more consistency and clarity concerning the regulation of cryptocurrency. Philip Rosenstein, *'America Needs to Lead' on Crypto, CFTC Chairman Says*, LAW360 (Nov. 12, 2019, 9:35 PM), https://www.law360.com/articles/1219189.

330. Nowell D. Bamberger et al., *Virtual Currencies, Manipulation, Cooperation, and More: CFTC Enforcement Division's 2018 Annual Report*, CLEARY GOTTLIEB (Nov. 26, 2018), https://www.clearyenforcementwatch.com/2018/11/virtual-currencies-manipulation-cooperation-cftc-enforcement-divisions-2018-annual-report/ [hereinafter Cleary Enforcement Watch].

331. *See, e.g.*, U.S. COMMODITY FUTURES TRADING COMM'N, SECURITY FUTURES PRODUCTS, https://www.cftc.gov/IndustryOversight/ContractsProducts/SecurityFuturesProduct/index.htm (last visited Sept. 15, 2019) (describing joint regulation of security futures products).

currencies operate as securities, primarily in Initial Coin Offerings (ICOs).[332] ICOs typically raise funds by selling tokens (a type of cryptocurrency) to investors rather than selling stock. In the first half of 2018, there were 56 ICOs that raised more than $1 billion in the United States, compared to 87 ICOs that raised $1.7 billion for the full year 2017, and billions more have been raised overseas.[333] While the SEC has pursued enforcement actions relating to ICOs, by late-2019 it had not announced an operational test for determining whether a virtual currency or digital asset is a security, and it seemed content to regulate through enforcement.[334] The Internal Revenue Service, DOJ, Treasury Department, and numerous state agencies also have asserted regulatory jurisdiction with respect to cryptocurrencies.[335] New York was the first state to comprehensively license cryptocurrency companies, and by August 2019 it had approved 22 licenses or charters to such companies.[336] This diffusion of regulatory jurisdiction no doubt renders more difficult the task of policing spoofing and layering in the virtual currency market.

A second obstacle to effective policing is the difficulty of conducting market surveillance sufficient to detect spoofing and layering in the digital currency market. Absent a tip from a whistleblower, regulators sometimes identify spoofing and other forms of market manipulation by conducting market surveillance.[337] The fundamental surveillance problem in virtual currency markets is that the same currency can be traded on multiple venues. Stocks also can be traded on multiple venues, but the surveillance problem for equities is reduced because the venues agree to share their quote data with a common host, which currently is FINRA. FINRA can pool the data and use it to identify cross-venue spoofing in equities markets. No such common host exists for cryptocurrency markets, and this void renders detection of cross-venue cryptocurrency spoofing virtually impossible.[338] Even if a common host did exist, it would confront the

---

332. Cleary Enforcement Watch, *supra* note 330; Dean Seal, *SEC Hasn't Shown Crypto Tokens are Securities, Judge Says*, LAW360 (Nov. 27, 2018, 9:08 PM), https://www.law360.com/articles/1105406/sec-hasn-t-shown-crypto-tokens-are-securities-judge-says (noting that "courts have largely concluded that ICO tokens are securities subject to the SEC's enforcement powers").

333. *See* Daniel Diemers et al., *Initial Coin Offerings: A Strategic Perspective*, PWC 1, 4 (June 2018), https://cryptovalley.swiss/wp-content/uploads/20180628_PwC-S-CVA-ICO-Report_EN.pdf.

334. *See* Rachel Graf, *SEC's ICO Enforcement has 'Changed Behavior, Official Says*, LAW360 (Oct. 23, 2019, 5:42 PM), https://www.law360.com/securities/articles/1212786/sec-s-ico-enforcement-has-changed-behavior-official-says?nl_pk=8b240a19-db95-4ea6-91e0-b797c8600de2&utm_source=newsletter&utm_medium=email&utm_campaign=securities (reporting that SEC commenced more than a dozen enforcement actions involving digital assets and ICOs in fiscal 2018); Robert Rosenblum et al., *SEC's Lax Crypto Settlement Marks Unexplained Policy Shift*, LAW360 (Oct. 17, 2019, 3:12 PM), https://www.law360.com/articles/1209143/sec-s-lax-crypto-settlement-marks-unexplained-policy-shift (noting that SEC has given the cryptocurrency markets "almost no affirmative guidance as to how to comply with the federal securities laws; the main thrust of their comments has been to say in essence that many or most tokens are securities, and that therefore the federal securities laws apply").

335. CFTC v. McDonnell, 287 F. Supp. 3d 213, 222 (E.D.N.Y. 2018); Dean Seal, *States 'Stepped into the Breach' As Crypto Market Exploded*, LAW360 (June 26, 2019, 9:53 PM), https://www.law360.com/articles/1168612/states-stepped-into-the-breach-as-crypto-market-exploded.

336. Philip Rosenstein, *Crypto Co. Gets NY Regulator's OK to Launch Bitcoin Futures*, LAW360 (Aug. 16, 2019, 7:39 PM), https://www.law360.com/articles/1189647/crypto-co-gets-ny-regulator-s-ok-to-launch-bitcoin-futures. *See also* Massad, *supra* note 328, at 34–37 (concluding that widely disparate state regulation of cryptocurrency markets is a poor substitute for federal regulation).

337. *Crypto Market Surveillance*, *supra* note 315.

338. *The Challenges of Crypto Trade Surveillance*, TRILLIUM (May 24, 2018), https://www.trlm.com/the-challenges-of-crypto-trade-surveillance/.

additional hurdle of linking accounts across multiple venues which employ unique account numbers to identify customer bids and offers. The host would have no viable way to link different accounts at different venues.[339] The surveillance problem is further magnified because cryptocurrency trading is fragmented on dozens of international platforms—many of which are not registered with the CFTC or SEC.[340]

VI. THE SPOOFING PROHIBITION IS NOT UNCONSTITUTIONALLY VAGUE

Defendants have argued in multiple cases that the DFA's prohibition on spoofing is unconstitutionally vague. This was one of the primary contentions advanced by Coscia,[341] and other defendants have followed his lead.[342] The argument rests partially on the fact that whereas Section 4c(a)(5)(C) prohibits both spoofing and conduct that is "of the character" of spoofing,[343] neither the CEA nor the Interpretive Guidance define the latter.[344] This omission has enabled defendants to argue—albeit unsuccessfully thus far—that the anti-spoofing provision is void for vagueness, because "[a] fundamental principle in our legal system is that laws which regulate persons or entities must give fair notice of conduct that is forbidden or required."[345]

Defendants raising such an argument face a steep hurdle, for multiple reasons. First, when reviewing a vagueness challenge, a court operates under the strong presumption that a law passed by Congress is valid.[346] Second, economic regulation—such as CEA Section 4c(a)(5)(C)—is subject to less rigorous vagueness scrutiny than non-economic regulation.[347] Third, generally a scienter requirement—such as that imposed by Section 4c(a)(5)(C)—saves a statute from unconstitutional vagueness.[348] Fourth, a statute is not void for vagueness if its application is unclear at the margins.[349] Fifth, when the law in question does not implicate First Amendment rights—which Section 4c(a)(5)(C) does not—a court must review a vagueness challenge on an as-applied basis, and not with regard to the statute's facial validity.[350]

The Seventh Circuit's 2017 decision in *Coscia* was the first appellate opinion to

339. *Id.*

340. Matt Robinson & Tom Schoenberg, *U.S. Launches Criminal Probe into Bitcoin Price Manipulation*, BLOOMBERG (May 24, 2018, 4:41 AM), https://www.bloomberg.com/news/articles/2018-05-24/bitcoin-manipulation-is-said-to-be-focus-of-u-s-criminal-probe.

341. *See* United States v. Coscia, 866 F.3d 782, 790–95 (7th Cir. 2017).

342. *See, e.g.*, United States v. Flotron, No. 3:17-cr-00220, 2018 WL 1401986, *5 (D. Conn. Mar. 20, 2018) (denying motion to dismiss superseding indictment for alleged spoofing of precious metals market); CFTC v. Oystacher, 203 F. Supp. 3d 934 (N.D. Ill. 2016) (rejecting vagueness challenge).

343. 7 U.S.C. § 6c(a)(5)(C) (2018).

344. The argument is undercut by the fact that Congress also used the phrase "of the character of, or is commonly known to the trade as" multiple times elsewhere in the CEA. The phrase is used to refer to an option, privilege, indemnity, bid, offer, put, call, advance guaranty, and decline guaranty. *See* 7 U.S.C. § 6c(b) (2018). Like spoofing, these items are not susceptible to precise definition. The phrase also is used to refer to wash sales. *See* 7 U.S.C. § 6c(a) (2018).

345. FCC v. Fox Television Stations, 567 U.S. 239, 253 (2012). *Accord* Brown v. Chicago Bd. of Educ., 824 F.3d 713, 716–17 (7th Cir. 2016) (explaining that a statute is impermissibly vague if it fails to provide fair notice of prohibited conduct).

346. United States v. Nat'l Dairy Prods. Corp., 372 U.S. 29, 32 (1963).

347. Vill. of Hoffman Est. v. Flipside, Hoffman Est., Inc., 455 U.S. 489, 498 (1982).

348. Advance Pharm. Inc. v. United States, 391 F.3d 377, 398 (2d Cir. 2004).

349. United States v. Williams, 553 U.S. 285, 306 (2008).

350. United States v. Rybicki, 354 F.3d 124, 129 (2d Cir. 2003).

address the constitutionality of the CEA's spoofing prohibition. As noted by the Seventh Circuit, to satisfy the Fifth Amendment's Due Process Clause,[351] a penal statute must define a criminal offense (1) with sufficient definiteness that ordinary people can understand what conduct is prohibited and (2) in a manner that does not encourage arbitrary and discriminatory enforcement.[352] With respect to the first requirement, the Seventh Circuit held that the CEA gave Coscia sufficient notice of the prohibited conduct because the statute includes a parenthetical definition of spoofing which makes clear the term means "bidding or offering with the intent to cancel the bid or offer before execution."[353] This holding resolved the open question of whether the parenthetical is the definition of spoofing or merely an example of it, and rendered irrelevant the statute's lack of legislative history.[354]

With respect to the second requirement—that a statute not be enforced arbitrarily—the Seventh Circuit noted that a party who engages in some conduct that is clearly proscribed cannot complain that the statute is vague as applied to others.[355] Coscia had no basis to argue arbitrary enforcement because his conduct clearly fell within the confines of the conduct prohibited by the amended CEA.[356] According to the Seventh Circuit, the evidence was clear that Coscia intended to cancel his orders because he commissioned a program to pump or deflate the market through the use of large orders that were specifically designed to be cancelled if they ever risked being filled.[357] Finally, the court held in the alternative that the CEA did not permit arbitrary enforcement.[358] The court underscored that arbitrary enforcement is rarely a concern if a statute requires the government to prove intent,[359] and the CEA does so. The CEA limits prosecution to those persons who possess the requisite specific intent to cancel orders at the time they were placed.[360] This requirement renders spoofing materially different from such legal trades as stop-loss orders and fill or kill orders, "because those orders are designed to be executed upon the arrival of certain subsequent events."[361]

The Seventh Circuit's decision in *Coscia* creates a template for future anti-spoofing enforcement.[362] It is significant because it is unanimous, persuasive, and the first appellate ruling concerning Dodd-Frank's spoofing provision. (By late-2019, it remained the only such appellate decision.) Moreover, the opinion was issued by a court whose jurisdiction encompasses Chicago, where CME's computer servers are located and the

---

351. U.S. CONST. amend. V.

352. United States v. Coscia, 866 F.3d 782, 790 (7th Cir. 2017) (explaining application of Due Process Clause to penal statutes). *Accord* Skilling v. United States, 561 U.S. 358, 402–03 (2010).

353. *Coscia*, 866 F.3d at 791–93.

354. *Id.* at 793.

355. *Id.* at 794.

356. *Id.*

357. *Id.*

358. *Coscia*, 866 F.3d at 794.

359. *Id.*

360. *Id. Accord* CFTC v. Oystacher, 203 F. Supp. 3d 934, 943 (N.D. Ill. 2016) (holding that spoofing statute's scienter requirement "mitigates any vagueness concerns").

361. *Coscia*, 866 F.3d at 795.

362. *See Anti-Spoofing Enforcement: 2018 Year in Review*, PAUL, WEISS, RIFKIND, WHARTON & GARRISON LLP: CLIENT MEMORANDUM 1, 2 (Jan. 7, 2019), https://www.paulweiss.com/practices/litigation/financial-institutions/publications/anti-spoofing-enforcement-2018-year-in-review?id=28056 (explaining how *Coscia* lays foundation for anti-spoofing enforcement).

vast majority of domestic commodity futures trading occurs. Illinois is home to more than two-thirds of all futures market registrants in the United States.[363] It is no coincidence that by June 2018, 11 traders had been criminally charged with spoofing in the futures markets and nine of those 11 had been charged in Chicago.[364]

Still, the Seventh Circuit's decision is somewhat troubling. First, it leaves unresolved the issue of what exactly constitutes trading conduct "of the character of" or "commonly known to the trade as 'spoofing.'" Second, the decision leaves unresolved the issue of how intent can be established in the absence of overwhelming statistical evidence of such factors as execution rates, order-to-trade size ratios, and order duration. The government introduced evidence during Coscia's trial showing that: (a) only 0.08% of his large orders on the CME, and 0.5% of his large orders on Intercontinental Exchange Futures U.S. (ICE), were executed,[365] (b) his average order was much larger than his average trade,[366] and (c) only 0.57% of his large orders were exposed for more than one second, compared to 65% of the large orders entered by other market participants.[367] On the basis of these facts, plus evidence of two software programs that Coscia had commissioned to facilitate his trading scheme,[368] the Seventh Circuit concluded that a rational jury easily could have found that, at the time he placed his orders, Coscia intended to cancel them before execution.[369] It seems unlikely that the government will choose to litigate cases absent such powerful statistical evidence of intent.

Third, while an order-to-trade ratio is an uncomplicated metric, the Seventh Circuit failed to clarify which ratios would constitute compelling evidence of intent. For example, Coscia's order-to-trade ratio of 1,592% was five times greater than the highest order-to-trade ratio of 264% observed in other market participants.[370] This comparison is persuasive, but if a defendant's order-to-trade ratio was, say, 500%, could a rational jury easily find that, at the time he placed his orders, he had the intent to cancel them before execution?[371] The Seventh Circuit did not draw a line or define a range. This failure reflects the fact that, as acknowledged by one former CFTC Commissioner, "trade data may not be enough to support a finding of intent in a spoofing matter."[372]

Indeed, in the second criminal spoofing case to go to trial, former UBS precious metals futures trader Andre Flotron[373] was acquitted by a jury in April 2018 despite the

363. Marcus Christian, *DOJ's 1st Anti-Spoofing Prosecution Reflects 2 Trends*, LAW360 (Oct. 23, 2014, 10:19 AM), https://www.law360.com/articles/1052048/breaking-down-the-2nd-criminal-spoofing-trial-part-2.

364. Clifford Histed et al., *Breaking Down the 2nd Criminal Spoofing Trial: Part 2*, LAW360 (June 12, 2018, 1:25 PM), https://www.law360.com/articles/1052048/breaking-down-the-2nd-criminal-spoofing-trial-part-2.

365. *Coscia*, 866 F.3d at 796.

366. *Id.*

367. *Id.*

368. *Id.* at 789.

369. *Id.* at 796.

370. *Coscia*, 866 F.3d at 796.

371. Lewis Liman et al., *Seventh Circuit Upholds First-Ever Federal Spoofing Conviction*, CLEARY GOTTLIEB STEEN & HAMILTON LLP (Aug. 10, 2017), https://www.clearygottlieb.com/-/media/organize-archive/cgsh/files/2017/publications/alert-memos/seventh-circuit-upholds-first-ever-federal-spoofing-conviction-8-10-17.pdf.

372. Behnam, Remarks, *supra* note 60. *Accord* Histed et al., *supra* note 364 ("[I]t may be highly doubtful that the government can win a [spoofing] trial based only on statistics and trade patterns.").

373. Press Release, U.S. Commodity Futures Trading Comm'n, CFTC Charges Andre Flotron with Spoofing and Engaging in a Deceptive and Manipulative Scheme in the Precious Metals Futures Markets (Jan.

government's presentation of extensive trading data.[374] The government had examined hundreds of thousands of Flotron's past COMEX trades, which were placed manually, to identify several hundred sequences that it alleged matched a spoofing pattern.[375] It is unclear why the jury acquitted. Perhaps this evidence was not persuasive. Or, perhaps, the jurors failed to decipher the data they reviewed.[376] One other plausible explanation for the outcome in *Flotron* is independent of the jury's comprehension, or lack thereof, of trading data. By the time the trial commenced the substantive counts of the indictment had been dismissed, so Flotron was tried only on one count of conspiracy to commit commodities fraud by means of spoofing.[377] It is not unlikely that the jury merely failed to find beyond a reasonable doubt that Flotron entered into the requisite agreement to support a conspiracy conviction.

VII. LIABILITY FOR FAILURE TO SUPERVISE

Spoofing and layering often occur in the absence of effective supervision, and sometimes with the knowledge and consent of supervisory personnel.[378] Historically, CME has failed to discipline employers for spoofing conducted by their traders,[379] whereas, as explained below, the SEC and CFTC have somewhat more aggressively pursued enforcement in spoofing and layering cases based on theories of failure to supervise and principal/agent liability.

The SEC has targeted spoofing and layering in equities markets by accusing broker-dealers whose accounts were used by others to engage in these trading practices of violating the agency's Market Access Rule[380] and/or other supervisory requirements. The Market Access Rule—adopted by the SEC effective in January 2011—requires that, as gatekeepers to the financial markets, broker-dealers that access an exchange or an

29, 2018), https://www.cftc.gov/PressRoom/PressReleases/pr7685-18.

374. Peter J. Henning, *The Problem with Prosecuting 'Spoofing,'* N.Y. TIMES (May 3, 2018), https://www.nytimes.com/2018/05/03/business/dealbook/spoofing-prosecuting-andre-flotron.html.

375. *See* Jon Hill, *Ex-Trader's Acquittal Shines Spotlight on Evidence of Intent*, LAW360 (Apr. 7, 2018, 4:54 PM), https://www.law360.com/articles/1037563/ex-trader-s-acquittal-shines-spotlight-on-evidence-of-intent. In December 2018 Flotron settled his parallel civil action with the CFTC by agreeing to pay $100,000 and accept a one-year trading ban. Dean Seal, *CFTC, Ex-UBS Trader Unveil $100K Spoofing Settlement*, LAW360 (Dec. 21, 2018, 3:50 PM), https://www.law360.com/articles/1114007/cftc-ex-ubs-trader-unveil-100k-spoofing-settlement.

376. *See* Jonathan S. Kolodner et al., *Acquittal of Former UBS Trader Signals Potential Challenges for Government's Anti-Spoofing Initiative*, CLEARY GOTTLIEB STEEN & HAMILTON LLP (Apr. 30, 2018), https://www.clearyenforcementwatch.com/2018/04/acquittal-former-ubs-trader-signals-potential-challenges-governments-anti-spoofing-initiative/ (underscoring that in spoofing cases, patterns extracted from trade and market data "can be difficult for juries to decipher").

377. *See* Clifford Histed et al., *Breaking Down the 2nd Criminal Spoofing Trial: Part 1*, LAW360 (June 11, 2018, 1:27 PM), https://www.law360.com/articles/1051835/breaking-down-the-2nd-criminal-spoofing-trial-part-1.

378. *See, e.g.*, Jody Godoy, *Ex-JPMorgan Metals Trader Cops to 6-Year Spoofing Scheme*, LAW360 (Nov. 6, 2018, 7:40 PM), https://www.law360.com/articles/1099481/ex-jpmorgan-metals-trader-cops-to-6-year-spoofing-scheme (reporting that former precious metals trader pleading guilty to spoofing scheme stated that "he personally deployed this strategy hundreds of times with the knowledge and consent of his immediate supervisors").

379. Marc Nagel, *Failure to Supervise: Spoofing and Wash Sales*, FUTURES MAG. (Feb. 22, 2016), http://admin.futuresmag.com/2016/02/22/failure-supervise-spoofing-and-wash-sales.

380. *See* 17 C.F.R. § 240.15c3-5 (2019).

alternative trading system or provide their customers with access to these trading venues must adequately control the financial and regulatory risks of providing such access.[381] Broker-dealers providing market access must implement procedures to prevent spoofing and layering and a failure to do so could constitute a violation. The Market Access Rule was adopted by the SEC primarily to address the financial and regulatory risks stemming from the proliferation of automated trading.[382] The objective is to prevent firms from "jeopardizing their own financial condition and that of other market participants, while . . . ensuring the stability and integrity of the [U.S.] financial system and . . . securities markets."[383] FINRA has asserted that it will be vigilant regarding compliance with the Market Access Rule[384] and it has initiated disciplinary proceedings in spoofing and layering cases predicated on Rule violations,[385] but compliance overall has been reported as low.[386]

A CFTC registrant may be liable for a failure to supervise under 17 C.F.R. § 166.3, which establishes a duty to diligently supervise activities of the registrant's partners, officers, employees, and agents.[387] Regulation 166.3 was issued in 1978 and the subsequent interpretive case law is well settled in favor of an expansive scope. Failure to supervise is an independent violation of CFTC regulations and liability may attach even absent an underlying CEA violation.[388] (In contrast, liability for failure to supervise under the Exchange Act does require an underlying substantive violation of securities law.)[389] Regulation 166.3 does not impose strict liability. Instead, courts apply a reasonableness standard.[390] An offense requires a showing that either (1) the registrant's supervisory system was generally inadequate; or (2) the registrant failed to perform its

381. *Id.*

382. *See* Andrew Ceresney, Director, SEC Div. of Enforcement, *Market Structure Enforcement: Looking Back and Forward*, SIFMA COMPLIANCE & LEGAL SOC'Y N.Y. REGIONAL SEMINAR (Nov. 2, 2015), https://www.sec.gov/news/speech/ceresney-speech-sifma-ny-regional-seminar.html (noting that Market Access Rule is designed to protect against risks arising from proliferation of automated trading).

383. News Release, Fin. Indus. Regulatory Auth., FINRA, Bats, NASDAQ, and NYSE Fine Firms for Market Access Rule Violations (July 27, 2017), https://www.finra.org/media-center/news-releases/2017/finra-bats-nasdaq-and-nyse-fine-firms-market-access-rule-violations.

384. MORGAN, LEWIS & BOCKIUS LLP, TRADING AND MARKETS ENFORCEMENT REPORT 3 (Aug. 2016), https://www.morganlewis.com/pubs/trading-and-markets-enforcement-report-aug-2016.

385. *See, e.g.*, News Release, Fin. Indus. Regulatory Auth., FINRA and Exchanges Charge Lek Securities and CEO Samuel F. Lek with Aiding and Abetting Securities Fraud (Mar. 27, 2017), https://www.finra.org/media-center/news-releases/2017/finra-exchanges-charge-lek-securities-its-ceo-aiding-abetting (detailing charges brought by FINRA against one CEO).

386. *See* Rachel Wolcott, *Special Report: Are U.S. Regulators Ahead of European Counterparts in Tackling Tech-Enabled Market Abuse?*, THOMSON REUTERS ACCELUS (June 22, 2017), https://www.vedderprice.com/-/media/files/news/2017/06/thomson-reuters-accelusare-us-regulators-ahead-of.pdf?la=en (analyzing actions taken by U.S. and E.U. regulators to oversee markets).

387. 17 C.F.R. § 166.3 (2019).

388. *See, e.g.*, In the Matter of Citigroup Global Markets Inc., CFTC No. 17-06, 4 (Jan. 19, 2017), https://www.cftc.gov/sites/default/files/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfcitigroupglobalorder011917.pdf; In the Matter of GNP Commodities Inc., CFTC No. 89-1, 1992 WL 201158, at *24 n.11 (Aug. 11, 1992).

389. *See* 15 U.S.C. § 78o(b)(4)(E) (2018).

390. Gregory Scopino, *Do Automated Trading Systems Dream of Manipulating the Price of Futures Contracts? Policing Markets for Improper Trading Practice by Algorithmic Robots*, 67 FLA. L. REV. 221, 277 (2015).

supervisory duties diligently.[391] The duty to supervise includes ensuring that employees receive sufficient training and their activities are monitored through systems and controls adequate to detect spoofing.[392] This monitoring can entail either pre-trade surveillance (to validate trade instructions) or post-trade surveillance (which often uses rule-based parameter models to generate alerts)—both of which suffer from limitations.[393]

In January 2017 the CFTC filed its first settled action against a registered firm—Citigroup—for supervision failures related to spoofing, and imposed a civil penalty of $25 million.[394] Six months later the CFTC announced NPAs with three Citigroup traders who learned spoofing techniques from Citigroup senior traders and engaged in the spoofing that resulted in Citigroup's fine.[395] Whereas the SEC has been using NPAs since 2010 and the DOJ since the early 1990s, these were the first NPAs ever entered into by the CFTC.[396] Perhaps the CFTC's mixed message in connection with Citigroup was designed to motivate traders under investigation for spoofing to tag their firms for failures to adequately train and supervise.[397] One final point on this topic is that whereas the CFTC has charged firms for failure to supervise,[398] a Regulation 166.3 violation does not give rise to a private right of action.[399]

The CFTC also has charged firms for the spoofing violations of their traders pursuant to a theory of vicarious liability—principals are liable for the acts of their employees that take place within the scope of their employment.[400] The CEA and its implementing regulations expressly provide for such liability,[401] and courts have held that under these provisions firms—as principals—are strictly liable for the actions of their

391. *See, e.g.*, *In re* Collins, CFTC No. 94-13, 1997 WL 761927, at *10 (Dec. 10, 1997) ("Moreover, in appropriate circumstances, a showing that the registrant lacks an adequate supervisory system can be sufficient to establish a breach of duty under Rule 166.3."); Paul J. Pantano, Jr. et al., *The Duty of Diligent Supervision: To Whom and What Does it Apply and What Does it Require?*, 37 FUTURES & DERIVATIVES L. REP. (Dec. 2017), https://www.willkie.com/~/media/Files/Publications/2018/01/The_Duty_of_Diligent_Supervision_To_Whom_And_What_Does_It_Apply_And_What_Does_It_Require.pdf.

392. *See* Behnam, Remarks, *supra* note 60.

393. James G. Lundy et al., *Spoofing, Surveillance & Supervision*, DRINKER BIDDLE (May 2018), https://www.drinkerbiddle.com/insights/publications/2018/05/spoofing-surveillance-and-supervision.

394. *See In re* Citigroup Global Markets, Inc., CFTC No. 17-06, at 2, 5 (Jan. 19, 2017), https://www.cftc.gov/sites/default/files/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfcitigroupglobalorder011917.pdf (finding that Citigroup violated Regulation 166.3 in spoofing case because it "failed to diligently supervise its employees and agents").

395. *See* Press Release, U.S. Commodity Futures Trading Comm'n, CFTC Enters into Non-Prosecution Agreements with Former Citigroup Global Markets Inc. Traders Jeremy Lao, Daniel Liao, and Shlomo Salant (June 29, 2017), https://www.cftc.gov/PressRoom/PressReleases/pr7581-17.

396. Rachel M. Cannon & Kristina Y. Liu, *Why the CFTC's New Use of NPAs is Significant*, LEXOLOGY (Aug. 8, 2017), https://www.lexology.com/library/detail.aspx?g=f25da18a-4ef5-4865-a9bb-308f82a04bc2.

397. Lundy et al., *supra* note 393.

398. James G. Lundy & Antonio M. Pozos, *The CFTC and DOJ Crack Down Harder on Spoofing & Supervision*, SEC. L. PERSPECTIVES (Feb. 6, 2018), http://securitieslawperspectives.com/cftc-doj-crack-harder-spoofing-supervision/ (asserting that charging firms for supervision failures "now appears to be a standard part of the CFTC's 'playbook' in spoofing cases").

399. *See, e.g.*, Bennett v. E. F. Hutton Co., 597 F. Supp. 1547 (N.D. Ohio 1984); CFTC v. Commodities Fluc. Systems, 583 F. Supp. 1382 (S.D.N.Y. 1984).

400. *See, e.g.*, *In re* Mizuho Bank, Ltd., CFTC No. 18–38 (Sept. 21, 2018), https://www.cftc.gov/sites/default/files/2018-09/enfmizuhobankorder092118.pdf (finding that Mizuho Bank was liable for the spoofing conduct of its trader).

401. 7 U.S.C. § 2(a)(1)(B) (2018); 17 C.F.R. § 1.2 (2019).

agents.[402] Strict liability is one of multiple aspects of the theory that make it even more appealing to the CFTC than a Regulation 166.3 violation, and thus it is common to see the CFTC employ the former theory but not the latter in a spoofing enforcement action.[403]

VIII. DO THE PROHIBITIONS ON SPOOFING AND LAYERING APPLY ONLY TO TRADERS?

As indicated *supra*,[404] in January 2018 the DOJ announced that seven individuals had been charged with the crime of spoofing. Previously, only three other individuals had ever been publicly charged with such a crime.[405] When the DOJ made its announcement it noted that, in addition to identifying and prosecuting the individual traders who engage in spoofing, it would seek to find and hold accountable "those who teach others how to spoof, who build the tools designed to spoof, or who otherwise aid and abet the wrongdoing."[406] One of the seven individuals criminally charged was Jitesh Thakkar, a software developer who designed and created computer programs used in a spoofing scheme. The trader he assisted was Sarao, who previously pled guilty to criminal charges of spoofing the market for E-mini S&P futures contracts[407] traded on the CME between 2010 and 2015. Thakkar was the first individual charged with a criminal spoofing violation of CEA Section 4c(a)(5)(C) who did not trade.[408]

The criminal and related civil charges against Thakkar reflected a novel front in the war against spoofing, but the charges were based on familiar theories—conspiracy, aiding and abetting, and control person liability, as a controlling person in civil co-defendant Edge Financial Technologies.[409] The CEA provides for both aiding and

402. *See, e.g.*, Dohmen-Ramirez & Wellington Advisory, Inc. v. CFTC, 837 F.2d 847, 857–58 (9th Cir. 1988); Rosenthal & Co. v. CFTC, 802 F.2d 963, 966 (7th Cir. 1986); CFTC v. Byrnes, 58 F. Supp. 3d 319, 324–25 (S.D.N.Y. 2014).

403. *See, e.g.*, *In re* Heraeus Metals N.Y. LLC, CFTC No. 19–28, 3–4 (Sept. 16, 2019), https://www.law360.com/articles/1199516/attachments/0 (discussing vicarious liability but not Regulation 166.3 liability); *In re* Bank of Tokyo Mitsubishi-UFJ, Ltd., CFTC No. 17–21, 3 (Aug. 7, 2017), https://www.cftc.gov/sites/default/files/idc/groups/public/@lrenforcementactions/documents/legalpleading/enftokyomitsubishiorder080717.pdf (same).

404. *Supra* Part II.B.

405. Press Release, U.S. Dep't of Justice, Eight Individuals Charged With Deceptive Trading Practices Executed on U.S. Commodities Markets (Jan. 29, 2018), https://www.justice.gov/opa/pr/eight-individuals-charged-deceptive-trading-practices-executed-us-commodities-markets.

406. *Id.*

407. The E-mini contract "attracts the highest dollar volume among U.S. equity index products (futures, options, or exchange-traded funds)." Andrei Kirilenko et al., *The Flash Crash: High-Frequency Trading in an Electronic Market*, 72 J. FIN. 967, 973 (2017). The product is designed to hedge exposure to the future performance of stocks in the S&P 500, which represents approximately 75% of the market capitalization of U.S.-listed equities. Market Events Findings, *supra* note 14, at 10. The E-mini contract was introduced by the CME in 1997, trades exclusively on the CME Globex electronic trading platform, and is CME's most actively traded product. *Id.* A typical day may see more than 700,000 transactions in the E-mini S&P 500. Massad 2015 Testimony, *supra* note 63.

408. Lauraann Wood, *Gov't Drops Software Exec Spoofing Case After Mistrial*, LAW360 (Apr. 23, 2019), https://www.law360.com/articles/1152821/gov-t-drops-software-exec-spoofing-case-after-mistrial.

409. *See* Criminal Complaint, United States v. Thakkar, No. 1:18-cr-00036 (N.D. Ill. Jan. 19, 2018) (charging Thakkar with conspiracy and aiding and abetting spoofing); Complaint for Injunctive Relief, Civil Monetary Penalties, and Other Equitable Relief at 17–20, CFTC v. Thakkar, No. 1:18-cv-00619 (N.D. Ill. Jan. 28, 2018) (alleging aiding and abetting and control person liability).

abetting liability—in a provision[410] that is modeled on the federal statute for criminal aiding and abetting liability[411]—and control person liability.[412] The Seventh Circuit stated in *Coscia* that "prosecution is thus limited to the pool of traders who exhibit the requisite criminal intent,"[413] and Thakkar seized on this statement in a motion to dismiss his indictment, but it is dicta. The potential liability of non-traders was not an issue in *Coscia*. Thakkar's motion was denied[414] and his trial took place in April 2019.

Thakkar prevailed. He was acquitted of the conspiracy charge mid-trial, a mistrial was declared after the jury deadlocked 10-2 in favor of acquittal on the aiding and abetting charge,[415] and the government declined to pursue a retrial.[416] The broader implications of Thakkar's trial are unclear. The case may cause the government to exercise caution in the future when considering whether to indict a non-trader for spoofing activity. On the other hand, *Thakkar* may constitute an outlier, in the sense that the government likely never has been inclined to pursue large numbers of programmers in criminal spoofing cases.[417]

Still, there is no reason for the case to close the door on prosecuting non-traders. As noted *supra*, the charges against Thakkar were based on familiar theories. The conspiracy charge collapsed because the government was unable to show an agreement, and the aiding and abetting charge failed to stick because the conspiracy charge had disappeared and the court refused to instruct the jury on willful blindness.[418] Such an instruction would have permitted the jury to convict Thakkar if it found "it was highly probable that he knew his software would be used for spoofing."[419] In a future case, with stronger facts, the government could succeed. Should the government pursue such cases? The deterrence value of a successful prosecution suggests that there is reason to do so.

---

410. 7 U.S.C. § 13c(a) (2018).

411. *See* 18 U.S.C. § 2 (2018) (establishing criminal liability for aiding and abetting); *In re* Amaranth Nat. Gas Commodities Litig., 730 F.3d 170, 181 (2d Cir. 2013) (noting that CEA provision is modeled on federal criminal provision).

412. 7 U.S.C. § 13c(b) (2018). More generally, targeting software developers is also consistent with current FINRA Rule 1220, approved by the SEC, which, beginning in 2017, requires registration as a Securities Trader for any individual who is (1) primarily responsible for the design, development, or significant modification of an algorithmic trading strategy relating to equity, preferred, or convertible debt securities; or (2) responsible for the day-to-day supervision or direction of such activities. *1220. Registration Categories*, FINRA, http://finra.complinet.com/en/display/display_main.html?rbid=2403&element_id=10203 (last visited Sept. 23, 2019).

413. United States v. Coscia, 866 F.3d 782, 794 (7th Cir. 2017).

414. Lauraann Wood, *Software Exec Must Face Spoofing Charges for Use of Tech*, LAW360 (Aug. 22, 2018), https://www.law360.com/articles/1075800/software-exec-must-face-spoofing-charges-for-use-of-tech.

415. Lauraann Wood, *Mistrial Declared in Ill. Software Exec's Spoofing Trial*, LAW360 (Apr. 9, 2019), https://www.law360.com/articles/1148235/mistrial-declared-in-ill-software-exec-s-spoofing-trial.

416. Lauraann Wood, *Gov't Drops Software Exec Spoofing Case After Mistrial*, LAW360 (Apr. 23, 2019), https://www.law360.com/articles/1152821/gov-t-drops-software-exec-spoofing-case-after-mistrial.

417. *See* Lauraann Wood, *Software Exec's Acquittal Could Rein in Spoofing Cases*, LAW360 (Apr. 5, 2019), https://www.law360.com/articles/1147153/software-exec-s-acquittal-could-rein-in-spoofing-cases (citing Laura Brookover, Special Counsel, Covington & Burling LLP).

418. Steven Block & Brian K. Steinwascher, *Insight: Spoofing Programmer Mistrial Sparks Questions About Future DOJ Prosecutions*, BLOOMBERG LAW (Apr. 16, 2019), https://news.bloomberglaw.com/white-collar-and-criminal-law/insight-spoofing-programmer-mistrial-sparks-questions-about-future-doj-prosecutions.

419. *Id.*

IX. DETECTING AND PROVING SPOOFING AND LAYERING

A major obstacle to anti-spoofing enforcement is that the behavior can be, and often is, difficult to detect and prove. This is particularly true when the spoofing is distributed across asset classes. The next section of this Article examines this obstacle.

A. Evidence of Spoofing and Layering

Detecting spoofing and later proving intent are two of the primary hurdles confronted by the government in a spoofing case. Absent cooperating witnesses or contemporaneous direct evidence in the form of emails, instant messages, or telephone recordings[420]—which may never have existed or may have disappeared before the government begins its investigation—the government generally will be required to prove intent using only circumstantial evidence. This evidence might "include the number and pattern of orders submitted, the length of time orders remained active before being cancelled, [and] the nature of the trading methodology . . . ."[421] "Circumstantial evidence of intent is just as probative as direct evidence"[422]—and the Seventh Circuit upheld Coscia's conviction primarily on the basis of the former—but evidence of trading patterns can be difficult to collect and analyzing patterns requires the ability to manage vast quantities of data.[423]

The obstacles mount when multiple brokers cooperate to spoof, using multiple accounts. Parallel criminal and civil actions commenced in December 2016 involved two brokers who allegedly used 35 different accounts at six different brokerage firms to conduct and conceal their spoofing and layering scheme.[424] Another criminal case that involved allegations of coordinated spoofing was resolved a few months later, in June 2017, when the DOJ entered into a plea agreement with trader David Liew. Liew admitted in his agreement that from December 2009 to February 2012 he conspired with other precious metals traders to spoof on hundreds of occasions.[425] While his former employer was not identified in the document, it appears to have been Deutsche Bank.[426]

---

420. *See* Daniel Waldman, *Has the Law of Manipulation Lost its Moorings?*, LAW360 (Apr. 7, 2017), https://www.law360.com/articles/911280 ("[W]ith the emergence of email, texting, tape recording and social media, gathering evidence of intent has never been easier.").

421. Matthew J. Kluchenek & Jacob L. Kahn, *Deterring Disruption in the Derivatives Markets: A Review of the CFTC's New Authority Over Disruptive Trading Practices*, 3 HARV. BUS. L. REV. 120, 125 (2013), https://www.hblr.org/2013/03/deterring-disruption-in-the-derivatives-markets-a-review-of-the-cftcs-new-authority-over-disruptive-trading-practices/.

422. United States v. Cunningham, 54 F.3d 295, 299 (7th Cir. 1995).

423. *See* 2018 Budget Request, *supra* note 58, at 2 ("Today, analyzing trading patterns requires the ability to handle massive quantities of data . . . ."); Alvaro Cartea et al., Spoofing and Price Manipulation in Order Driven Markets 2 (Aug. 2, 2019) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3431139 ("Spoofing and layering are very difficult to detect."). Proving intent in a spoofing case may become even more difficult as artificial intelligence is introduced and used to accomplish HFT. Cass, *supra* note 224. *But cf.* Gina-Gail S. Fletcher, *Benchmark Regulation*, 102 IOWA L. REV. 1929, 1940 (2017) (asserting that spoofing can be quickly detected by regulators).

424. *Traders Charged in Multi-Broker Spoofing Scheme*, TRILLIUM MANAGEMENT (Dec. 15, 2016), https://www.trlm.com/traders-charged-multi-broker-spoofing-scheme/.

425. Plea Agreement at 2, United States v. Liew, (No. 17-CR-001) (N.D. Ill. June 1, 2017), https://www.justice.gov/criminal-fraud/file/972986/download.

426. Renato Mariotti, *Newest Criminal Spoofing Case Features Coordinated Spoofing, Front Running*,

Liew also settled a related civil action commenced by the CFTC by agreeing to a permanent trading ban in CFTC-regulated markets.[427]

Coordinated spoofing subsequently emerged as a trend in the United States,[428] and it is particularly difficult to detect (and prove). On the proof side, chat room conversations can be highly suggestive of coordinated cross-trader spoofing.[429] The electronic record of such conversations has been a central component of multiple spoofing cases.[430] For example, in June 2019 the DOJ entered into an NPA with Merrill Lynch Commodities, Inc. to resolve a criminal investigation that uncovered chats revealing spoofing by Merrill Lynch traders during the period from at least 2008 to 2014.[431] Increasingly, however, traders rely on encrypted messaging apps such as Signal, Telegram, and WhatsApp—some of which allow for self-destructing messages—to thwart prosecution.[432]

FINRA has tried to address the detection problem. FINRA conducts, on its own behalf, surveillance of the trading activity of its 3800 registered broker-dealer members, as well as some degree of surveillance for approximately "19 exchanges that operate 26 stock and options markets."[433] This surveillance encompasses 99.5% of U.S. stock market trading volume and about 65% of U.S. options trading activity,[434] but it does not encompass futures markets.

In 2016, FINRA amended its Rule 5210 to prohibit engaging in or facilitating spoofing and layering[435] when the conduct constitutes a "frequent pattern"—a term that

---

THOMPSON COBURN LLP (June 5, 2017), https://www.thompsoncoburn.com/insights/publications/item/2017-06-05/newest-criminal-spoofing-case-features-coordinated-spoofing-front-running.

427. Cara Mannion, *Deutsche-Linked Futures Trader Cops to Metals 'Spoofing*,*'* LAW360 (June 2, 2017, 5:37 PM), https://www.law360.com/articles/930858.

428. *See* Wolcott, *supra* note 386, at 5. This trend is consistent with more general patterns. For example, in the second quarter of 2017, 54% of FINRA's cross-market equity alerts identified potential manipulative activity by two or more market participants acting together. Cook, *supra* note 39.

429. Ilan Guedj & An Wang, *An Update on Spoofing and its Challenges*, LAW360 (Mar. 16, 2016, 12:14 PM), https://www.law360.com/articles/1022562/an-update-on-spoofing-and-its-challenges.

430. Todd Ehret, *Impact Analysis: Latest U.S. Spoofing Cases Show Regulators' Focus, Highlight Chat Rooms*, REUTERS (June 13, 2017, 2:40 PM), https://www.reuters.com/article/bc-finreg-regulators-chatrooms-idUSKBN1942JD.

431. Merrill Lynch Commodities, Inc. Non-Prosecution Agreement, Attachment A, 4 (June 25, 2019), https://www.justice.gov/opa/press-release/file/1177296/download; Todd Ehret, *Chat Room Messages are 'Smoking Gun' in $25 Million Merrill CFTC Spoofing Penalty*, REUTERS (July 17, 2019, 2:46 PM), https://www.reuters.com/article/bc-finreg-chat-room-messages/chat-room-messages-are-smoking-gun-in-25-million-merrill-cftc-spoofing-penalty-idUSKCN1UC2BZ.

432. Stewart Bishop, *White Collar 'Goes Dark' with Rise of Secret Messaging Apps*, LAW360 (Sept. 20, 2017, 7:32 PM), https://www.law360.com/articles/960228/white-collar-goes-dark-with-rise-of-secret-messaging-apps.

433. Cook, *supra* note 39; U.S. Sec. & Exch. Comm'n, Release No. 34-79361, File No. SR-FINRA-2016-043, at 3 n.7 (Nov. 21, 2016), https://www.sec.gov/rules/sro/finra/2016/34-79361.pdf. *See also* Linda Rittenhouse, *Self-Regulation in the Securities Markets: Transitions and New Possibilities*, CFA INSTITUTE 17 (Aug. 2013), https://www.cfainstitute.org/en/advocacy/policy-positions/self-regulation-in-the-securities-markets-transitions (observing that numerous securities exchanges outsource market surveillance to FINRA).

434. Cook, *supra* note 39.

435. *See* FINRA, Rule 5210, Supplementary Material .03 (Disruptive Quoting and Trading Activity Prohibited), http://finra.complinet.com/en/display/display.html?rbid=2403&element_id=8726 (last visited Sept. 15, 2019). Simultaneously, FINRA amended its Rule 9810 to provide the agency with authority to issue, on an expedited basis, a permanent cease and desist order against any FINRA member that violates Supplementary Material .03 or provides market access to a client engaged in the violative activity. *See* FINRA, Rule 9810, http://finra.complinet.com/en/display/display_main.html?rbid=2403&element_id=4026 (last visited Sept. 15,

was left undefined. No evidence of improper intent is required to establish a violation.[436] That same year, FINRA initiated a program wherein brokerage firms are issued cross-market equities supervision report cards designed to alert them to potential spoofing and layering activity—including multi-broker spoofing.[437] Because the report cards are not made public and do not represent findings that violations have occurred, it is unclear what steps firms receiving troubling reports are expected to take. The efficacy of FINRA's report card approach is doubtful.[438]

Single or multiple brokers often engage in cross-market spoofing,[439] which is similarly difficult to expose (and prove). Futures exchanges have trouble detecting cross-market spoofing because their surveillance systems generally are limited to activity occurring on their own platforms.[440] In September 2018, the CFTC settled with a New Jersey-based commodities trader and his former firm for $2.3 million, in a case in which the broker spoofed the copper futures markets on both COMEX and the London Metal Exchange.[441] The investigation of this case was conducted by the CFTC's Spoofing Task Force, and the Commission charged that the trader's domestic spoofing violated only Section 4c(a)(5) and his cross-market spoofing violated only Section 6(c)(1) and Regulation 180.1.[442] It is not clear whether COMEX was able to detect this scheme. The

---

2019). Prior to these amendments, FINRA had pursued enforcement actions in spoofing and layering cases by alleging, *inter alia*, violations of just and equitable principles of trade (FINRA Rule 2010). Canellos et al., *supra* note 154, at 11.

436. *See* David F. Freeman, Jr., *Combating Disruptive Electronic Trading: Expedited Cease and Desist Proceedings by FINRA*, PLI, BD/IA: REGULATION IN FOCUS (Nov. 23, 2016), https://bdia.pli.edu/index.php/2016/11/23/combating-disruptive-electronic-trading-expedited-cease-and-desist-proceedings-by-finra/ ("FINRA has made clear that no intent is necessary for a violation.").

437. News Release, Fin. Indus. Regulatory Auth., FINRA Issues First Cross-Market Report Cards Covering Spoofing and Layering (Apr. 28, 2016), https://www.finra.org/media-center/news-releases/2016/finra-issues-first-cross-market-report-cards-covering-spoofing-and; Ed Beeson, *FINRA Aims to Teach a Lesson with Spoofing Report Cards*, LAW360 (Jan. 5, 2016, 10:32 PM), https://www.law360.com/articles/742698/finra-aims-to-teach-a-lesson-with-spoofing-report-cards.

438. In 2017 FINRA announced that it had seen a 68% decline in "layering exceptions" since the initiation of its cross-market report card program. *See* Sarah N. Lynch, *Wall Street Regulator Detects Fewer Signals of Illegal 'Layering*,*'* REUTERS (May 17, 2017, 12:15 PM), https://www.reuters.com/article/us-wall-street-finra-manipulation-idUSKCN18D23W (reporting decline). This statistic is of limited significance. First, it may simply indicate that layering has become increasingly more difficult to detect. *See id.* (reporting that traders may have discovered how to evade detection). Second, it is not clear that the number includes spoofing. Third, whereas spoofing and layering are more common in futures than in equities, the report card program only encompasses the latter markets because FINRA lacks jurisdiction over derivatives.

439. *See* Cook, *supra* note 39 (noting that in the second quarter of 2017, 74% of FINRA's "cross-market equity alerts identified potential manipulation by a market participant acting across multiple markets."); Wolcott, *supra* note 386 (noting that United States has seen many cases of multi-venue spoofing). The terminology can become tricky. "Cross-market manipulation" often refers to the buying or selling of stocks to shift the price of corresponding options, then exploiting those artificial price movements to make a profit. *See* Reenat Sinay, *Lek Securities, CEO to Pay $2M to End SEC 'Layering' Suit*, LAW360 (Oct. 2, 2019, 8:04 PM), https://www.law360.com/articles/1205456/lek-securities-ceo-to-pay-2m-to-end-sec-layering-suit ("Cross-market manipulation refers to controlling the prices of options through trading in the corresponding stocks.").

440. Cooper & Davis, *supra* note 36.

441. *In re* Michael D. Franko, CFTC Docket No. 18-35, at 5–6 (C.F.T.C. Sept. 19, 2018), https://www.cftc.gov/sites/default/files/2018-09/enfmichaeldfrankoorder091918.pdf; *In re* Victory Asset, Inc., CFTC Docket No. 18-36 (C.F.T.C. Sept. 19, 2018), https://www.cftc.gov/sites/default/files/2018-09/enfvictoryassetorder091918.pdf.

442. *See* Dean Seal, *NJ Trader*, *Firm to Pay CFTC $2.3 Million Over Spoofing Claims*, LAW360 (Sept. 19,

CFTC's decision to not charge a Section 4c(a)(5) violation in connection with the cross-market spoofing was correct, because that statute only prohibits spoofing conducted on or subject to the rules of a registered exchange, which the London Metal Exchange is not. But proving the Section 6(c)(1) violation would have been difficult, had the case been litigated. In a cross-market spoofing case involving a foreign exchange the CFTC probably must show that the "foreign contract [is] sufficiently economically correlated to a domestic contract" that a spoofing order for the former constitutes a manipulative or deceptive device or contrivance used in connection with the sale of the latter.[443]

B. The National Exam Analytics Tool and the Consolidated Audit Trail

The task of uncovering spoofing schemes may be eased by at least two data analytics tools. One is the SEC's National Exam Analytics Tool (NEAT), which was developed by the SEC's Quantitative Analytics Unit and unveiled in 2014. NEAT permits the SEC's examiners to access and systematically analyze large, complex trade blotters and match them against external events. Massive amounts of trading data can be analyzed in a fraction of the time it previously took,[444] and therefore NEAT can be used by the SEC to detect spoofing in equity markets.[445]

The second tool is the Consolidated Audit Trail (CAT). In 2012, in the wake of the 2010 flash crash, the SEC directed FINRA, the CBOE, the New York Stock Exchange, and Nasdaq to work together to develop and operate the CAT,[446] and in 2016 the SEC approved an implementation plan.[447] The CAT is intended to provide FINRA and the SEC with a searchable database that will allow them to accurately identify the beneficial owner of an order or trade and to follow the transaction through the entire trade lifecycle—from origination through routing, modification, cancellation, or execution—recorded on an industry-wide synchronized clock, down to milliseconds or finer increments.[448] One major change that the CAT will accomplish is universal access to market information by securities regulators. Whereas pre-CAT, FINRA and the exchanges each have access to information that the others do not, post-CAT all self-

---

2018, 7:01 PM), https://www.law360.com/articles/1084423/nj-trader-firm-to-pay-cftc-2-3m-over-spoofing-claims (reporting agreement to pay $2.3 million in combined civil penalties to settle spoofing scheme affecting copper, gold, and crude oil futures markets).

443. Cooper & Davis, *supra* note 36.

444. *See* Mary Jo White, Chairman, SEC, *The SEC in 2014*, 41st Annual Securities Regulation Institute (Jan. 27, 2014), https://www.sec.gov/news/speech/2014-spch012714mjw (explaining NEAT capabilities).

445. *See* MARC H. AXELBAUM ET AL., SPOOFING IS NO JOKE: PROSECUTORS CLAMP DOWN ON HIGH-FREQUENCY TRADERS 4 (Jan. 4, 2016), https://www.pillsburylaw.com/images/content/1/2/v2/1270/AlertJan2016LitigationSpoofingisNoJoke.pdf. Similarly, Nasdaq uses SMARTS trade surveillance technology to detect manipulative activity, including spoofing. *See SMARTS Trade Surveillance*, NASDAQ, https://business.nasdaq.com/market-tech/market-participants/Sell-Side/Surveillance (last visited Sept. 15, 2019).

446. *See* Hayden C. Holliman, Note, *The Consolidated Audit Trail: An Overreaction to the Danger of Flash Crashes from High Frequency Trading*, 19 N.C. BANKING INST. 135, 164 (2015) (concluding that the CAT manifests overreaction to flash crash).

447. Cook, *supra* note 39.

448. SIFMA, INDUSTRY RECOMMENDATIONS FOR THE CREATION OF A CONSOLIDATED AUDIT TRAIL (CAT) 6 (2013), https://www.sifma.org/wp-content/uploads/2017/05/industry-recommendations-for-the-creation-of-a-consolidated-audit-trail.pdf.

regulatory organizations (SROs) and the SEC will have access to CAT information.[449] This will permit regulators to rapidly reconstruct trading activity and identify the parties responsible for each order.[450]

The CAT's implementation has been repeatedly delayed and by mid-2018 the CAT still lacked a firm launch date.[451] The repeated delays have been attributed to the SEC's decision to place the SROs—which are deeply conflicted—in charge of development, design, implementation, and maintenance.[452] A FINRA subsidiary—FINRA CAT, LLC—is the CAT's plan processor, and the subsidiary is charged with the additional duties of creating, operating, and maintaining the CAT.[453] More recently, in May 2019, the CAT posted updated information on its website stating that industry members would begin reporting data to the CAT beginning in April 2020 for large firms and those small firms already reporting data to FINRA's Order Audit Trail System,[454] which the CAT will supersede. However, while the CAT could help detect cross-market spoofing,[455] it is not currently designed to encompass futures markets[456] and thus will provide no access to information concerning the financial instruments that are most likely to be subject to spoofing and layering.

C. Regulation A-T

Another potential tool to combat spoofing is Regulation Automated Trading (Reg A-T). Reg A-T was first proposed by the CFTC in 2015 and is designed to update the Commission's rules on trading practices in response to the evolution from pit trading to electronic and algorithmic trading.[457] It would require certain traders to (a) implement pre-trade risk controls reasonably designed to prevent and reduce the risk of trading activity that violate the CEA or CFTC regulations—including the spoofing prohibition, and (b) perform testing of their systems and sources reasonably designed to identify circumstances that may contribute to such violations.[458] Reg A-T would largely codify a number of existing industry best practices,[459] but it has encountered rough waters and

449. Cook, *supra* note 39.

450. Charles R. Korsmo, *High-Frequency Trading: A Regulatory Strategy*, 48 U. RICH. L. REV. 523, 609 (2014).

451. Dunstan Prial, *SEC Faces Calls to Push Back Harder on Audit Trail Delays*, LAW360 (May 11, 2018, 7:34 PM), https://www.law360.com/articles/1042904/sec-faces-calls-to-push-back-harder-on-audit-trail-delays.

452. *Id.*

453. *See The Consolidated Audit Trail*, CAT FAQS, https://www.catnmsplan.com/faq/index.html (last visited Oct. 24, 2019) (identifying FINRA CAT, LLC as the subsidiary); Fin. Indus. Regulatory Auth., Rules and Guidance, FINRA CAT, LLC, https://www.finra.org/rules-guidance/rulebooks/corporate-organization/iii-finra-cat (last visited Oct. 24, 2019) (identifying delegation of functions and authority to FINRA CAT, LLC).

454. *The Consolidated Audit Trail*, TIMELINES, https://www.catnmsplan.com/timelines/ (last visited Sept. 15, 2019).

455. Wolcott, *supra* note 386.

456. *SEC Approves Consolidated Audit Trail Plan*, DAVIS POLK & WARDWELL LLP (Dec. 20, 2016), https://www.davispolk.com/files/2016-12-20_sec_approves_consolidated_audit_trail_plan.pdf.

457. RENA S. MILLER & GARY SHORTER, HIGH FREQUENCY TRADING: OVERVIEW OF RECENT DEVELOPMENTS 9 (Cong. Res. Serv. 7-5700, 2016), https://fas.org/sgp/crs/misc/R44443.pdf.

458. Regulation of Automated Trading, Notice of Proposed Rulemaking, 80 Fed. Reg. 78,824 (Dec. 17, 2015); Regulation Automated Trading, Supplemental Notice of Proposed Rulemaking, 81 Fed. Reg. 85,334 (Nov. 25, 2016).

459. *CFTC Proposes Rulemaking Regarding Automated Trading*, SULLIVAN & CROMWELL LLP (Dec. 2, 2015), https://www.sullcrom.com/cftc-proposes-rulemaking-regarding-automated-trading.

substantial delay. By November 2019 it had not yet been adopted by the CFTC.

D. Industry Software

The CFTC does not expressly mandate surveillance at the firm level[460] but the absence of this requirement should not deter firms from monitoring their traders' conduct. The Commission has encouraged surveillance by including it as part of the undertakings in several of its recent high-profile spoofing settlements,[461] and surveillance systems are readily available from third-party vendors. For example, Vertex Analytics has created graphics software that has been used by the exchanges to detect spoofing.[462] The software is able to graphically represent every order and transaction in a market, thereby making review more efficient.[463] Another technology-consulting firm—Neurensic, Inc.—has developed a Spoofing Similarity Model that also aids in detection.[464] Some market participants have internally developed proprietary systems.[465] Global spending on trader surveillance reached an estimated $758 million by the end of 2017,[466] but only a fraction of this was specifically devoted to the detection of spoofing.

X. CONSTRAINTS ON THE CFTC

The primary goals of the CFTC's enforcement function are the preservation of market integrity and protection of customers from harm.[467] Historically, accomplishment of these goals has been undermined by the Commission's shoestring budget. The resource problem was exacerbated by the DFA, which substantially increased the CFTC's authority and mandate by expanding the types of conduct and entities the Commission regulates. The markets that the CFTC oversees post-DFA are vast—comprising over

460. *See* James G. Lundy & Carrie E. DeLange, *7th Circuit Affirms 1st Conviction for Spoofing*, NAT'L L. REV. (Aug. 16, 2017), https://www.natlawreview.com/article/7th-circuit-affirms-1st-conviction-spoofing (noting that trade surveillance is "not currently a regulatory requirement").

461. *Id.* For example, as part of the CFTC's spoofing settlement with Bank of Nova Scotia in September 2018, BNS was required to pay an $800,000 civil monetary penalty and implement systems and controls reasonably designed to detect spoofing activity by its traders. *In re* Bank of Nova Scotia, CFTC Docket No. 18-50 (C.F.T.C. Sept. 28, 2018), https://www.cftc.gov/sites/default/files/2018-09/enfbankofnovascotiaorder092818.pdf.

462. *See* Matthew Leising, *Spoofing Went Mainstream in 2015*, BLOOMBERG BUS. (Dec. 21, 2015, 7:00 PM), https://www.bloomberg.com/news/articles/2015-12-22/nabbing-the-rogue-algo-inside-the-year-spoofing-went-mainstream.

463. *Id. See also* Garrett Baldwin, *Vertex's Visualizations: Advancing Algos & Spotting Spoofers*, MOD. TRADER (Apr. 16, 2016), http://m.futuresmag.com/2016/04/16/vertex%E2%80%99s-visualizations-advancing-algos-spotting-spoofers?page=1 (describing Vertex technology).

464. *Spoofing Similarity Model*, NEURENSIC, INC. (Sept. 13, 2016), http://neurensic.com/spoofing-similarity-model/.

465. Lundy & DeLange, *supra* note 460. Historically, surveillance tools detected trading patterns using rule-based criteria, which, in the case of spoofing, might have taken the form of conditionals based on the directionality, size, and timing of orders. More recently, surveillance has adopted machine learning tools and technology to identify spoofing. Collin Starkweather & Izzy Nelken, *Artificial Intent: AI on the Trading Floor*, LAW360 (Jan. 23, 2019, 1:21 PM), https://www.law360.com/articles/1119871/artificial-intent-ai-on-the-trading-floor.

466. *The Future of Trader Surveillance: The ABCD of Successful Surveillance*, ERNST & YOUNG 6 (2017), https://www.ey.com/Publication/vwLUAssets/ey-trader-surveillance-report/%24FILE/EY%20Trader%20Surveillance%20report.pdf.

467. *See* 2018 Budget Request, *supra* note 58.

$431 trillion in notional value of futures, options, and swaps[468]—but the Commission has not been granted adequate resources to do an effective job.[469] The CFTC's budget remained flat during fiscal years 2015-2018—it was $250 million during three of those years and declined by $1 million during 2018.[470] In leverage terms, each year the CFTC receives $1 in federal funds to cover $1.72 million worth of products.[471] The CFTC is saddled with a substantially more modest budget and staff than the SEC, which regulates a much smaller securities market.[472] The CFTC's budget finally increased in 2019, but the increase was quite modest—a mere additional $19 million.[473]

Moreover, the CFTC—unlike virtually all other financial regulators (including the SEC)—receives none of its funding from market participants.[474] The CFTC has asked for years for user fees to fund itself, but such fees have never been provided.[475] The absence of user fees has the advantage of reducing conflicts of interest that are inherent in most SROs, but it has the pronounced disadvantage of hampering the CFTC's ability to achieve its regulatory goals. As noted by one recent review, the "CFTC's size and perpetual underfunding has led to selective enforcement—the CFTC only prosecutes the largest and most egregious spoofing cases."[476] Similarly, the CFTC is forced to settle comprehensive spoofing matters rather than proceed to costly trials.[477]

The CFTC's funding problem is compounded by the fact that the Commission is technologically challenged. It lacks both access to real-time trading data from the exchanges and sufficient personnel with the capacity to analyze the data it does collect.[478] According to Goelman, the CFTC's former Director of Enforcement, a "massive amount of misconduct" in futures markets goes undetected because of insufficient data mining.[479]

468. Brez, *supra* note 21.

469. *See, e.g.*, Timothy G. Massad, Commissioner, CFTC, Remarks at the CME Global Financial Leadership Conference (Nov. 18, 2014), https://www.cftc.gov/PressRoom/SpeechesTestimony/opamassad-5 ("[T]he CFTC's current budget falls very short.").

470. J. Christopher Giancarlo, Chairman, CFTC, Testimony Before S. Comm. on Appropriations Subcomm. on Fin. Servs. and General Gov't (June 5, 2018), https://www.cftc.gov/PressRoom/SpeechesTestimony/opagiancarlo47.

471. Sharon Y. Bowen, Comm'r, CFTC, Statement on the CFTC's 2018 Budget Request (May 23, 2017), https://www.cftc.gov/PressRoom/SpeechesTestimony/bowenstatement052317 [hereinafter Bowen].

472. Zach Brez & Jon Daniels, *The New Financial Sheriff: CFTC Anti-Fraud Authority After Dodd-Frank*, 44 SEC. REG. & L. REP. 1209 (June 18, 2012).

473. Alison Noon, *In Spending Plan, CFTC Gets Funding Boost, SEC Can Move*, LAW360 (Feb. 15, 2019, 9:02 PM), https://www.law360.com/articles/1129999/in-spending-plan-cftc-gets-funding-boost-sec-can-move.

474. *See* John Crawford et al., Volcker Alliance, *Memorandum Concerning the Securities and Exchange Commission and the Commodity Futures Trading Commission* 98 (Oct. 21, 2014), https://www.volckeralliance.org/sites/default/files/attachments/Background%20Paper%203_Memorandum%20Concerning%20The%20Securities%20and%20Exchange%20Commission%20and%20The%20Commodity%20Futures%20Trading%20Commission.pdf [hereinafter Volker Alliance] ("The CFTC is the only financial regulatory agency that is not at least partially self-funded.").

475. Bowen, *supra* note 471.

476. Heinz, *supra* note 110, at 97.

477. *See, e.g.*, Freifeld, *supra* note 3 (noting that if the CFTC had proceeded to trial against spoofer Igor Oystacher, this would have consumed a huge chunk of the Commission's operating budget for 2017).

478. Strom, *supra* note 81.

479. Freifeld, *supra* note 3.

XI. CFTC ENFORCEMENT TOOLS

The CFTC has available to it certain enforcement tools that may help offset its resource constraints. Those tools are discussed below.

A. The CFTC's Cooperation and Self-Reporting Program

The CFTC's anti-spoofing efforts may be enhanced by its cooperation and self-reporting program. In January 2017 the Commission's Division of Enforcement issued two Enforcement Advisories setting forth factors the Division may consider in assessing cooperation by companies and individuals in the context of CFTC enforcement proceedings.[480] The January 2017 CFTC Enforcement Advisories—one for companies and one for individuals—were the first update to the CFTC's corporate cooperation guidelines since 2007 and the Division's first statement of its policy specifically concerning cooperating individuals.

The January 2017 Advisories outlined four sets of factors the Division may use in evaluating a party's cooperation. They are the same for both the Companies and Individuals Advisories, with slight differences in the sub-factors. The four sets of factors are: (1) the value of the cooperation to the Division's investigation(s) or enforcement action(s); (2) the value of the cooperation in the context of the Division's broader law enforcement interests; (3) the balance of culpability and any history of misconduct against acceptance of responsibility and mitigation or remediation, and (4) any uncooperative conduct, including actions taken to mislead, obstruct or delay the division's investigation.[481] The consideration of the four sets of factors in a particular matter is subject to the discretion of the CFTC enforcement attorneys handling that matter.[482]

The January 2017 Advisories reflected the DOJ's prior Yates Memorandum, issued in September 2015 by then-DOJ Deputy Attorney General Sally Yates.[483] The Yates Memorandum, formally entitled "Individual Accountability for Corporate Wrongdoing," was designed to reaffirm the DOJ's commitment to hold executives and other individuals

480. *See generally* U.S. COMMODITY FUTURES TRADING COMM'N, ENFORCEMENT ADVISORY: COOPERATION FACTORS IN ENFORCEMENT DIVISION SANCTION RECOMMENDATIONS FOR COMPANIES (Jan. 19, 2017), http://www.cftc.gov/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfadvisorycompanies011917.pdf [hereinafter COMPANIES ADVISORY]; U.S. COMMODITY FUTURES TRADING COMM'N, ENFORCEMENT ADVISORY: COOPERATION FACTORS IN ENFORCEMENT DIVISION SANCTION RECOMMENDATIONS FOR INDIVIDUALS 1 (Jan. 19, 2017), http://www.cftc.gov/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfadvisoryindividuals011917.pdf [hereinafter INDIVIDUALS ADVISORY].

481. COMPANIES ADVISORY, *supra* note 480, at 2–7; INDIVIDUALS ADVISORY, *supra* note 480, at 2–5.

482. Paul Pantano, Jr. et al., *CFTC Cooperation Advisories Prescribe High Burdens — Has the Expectation of Above-and-Beyond Cooperation Across Federal Agencies Reached Its Apex?*, WILLKIE FARR & GALLAGHER LLP 2 (Mar. 15, 2017), http://www.willkie.com/~/media/Files/Publications/2017/03/CFTC_Cooperation_Advisories_Prescribe_High_Burdens.pdf.

483. Memorandum from Sally Q. Yates, Deputy Att'y Gen., U.S. Dep't of Justice, to All Component Heads and United States Attorneys (Sept. 9, 2015), https://www.justice.gov/dag/file/769036/download. *See* Gideon Mark, *The Yates Memorandum*, 51 UC DAVIS L. REV. 1589, 1592–96 (2018) (describing the origin of the Yates Memorandum).

accountable for corporate misconduct.[484] The January 2017 Advisories echoed the Yates Memorandum by emphasizing the identification of culpable individuals[485]—which prior iterations of the Advisories did not—but, unlike the Yates Memorandum, they did not explicitly require a corporation to provide all relevant facts relating to these individuals as a prerequisite to qualify for any cooperation credit.[486] Instead, this was merely one factor that the CFTC might take into consideration.

The January 2017 Advisories failed to quantify the financial benefits that could result from voluntary cooperation.[487] They provided "no assurance that a company providing a particular degree of cooperation will receive a particular amount of credit—or any credit—in return."[488] This failure to provide clarity and transparency regarding the tangible benefits companies can expect to receive in exchange for cooperation threatened to limit the Advisories' effectiveness.[489]

In September 2017 the CFTC changed its approach when it issued a further updated advisory that modified but did not supplant the January 2017 Advisories.[490] This update contemplated a multistep process of self-reporting, cooperation, and remediation. Like the Yates Memorandum, it emphasized that voluntary self-reporting is independent of cooperation and clarified that in order to obtain full credit the disclosure of all relevant facts about the individuals involved in the misconduct is required.[491] Voluntary

484. *See generally* Robert R. Stauffer & William C. Pericak, *Twenty Questions Raised by the Justice Department's Yates Memorandum*, 99 CRIM. L. REP. (BNA) 191 (May 18, 2016).

485. *See id.*

486. *CFTC Releases New Enforcement Cooperation Guidelines*, LATHAM & WATKINS: CLIENT ALERT COMMENTARY, No. 2076, 2 (Feb. 14, 2017), https://www.lw.com/thoughtLeadership/CFTC-new-enforcement-cooperation-guidelines.

487. *CFTC's Demanding New Cooperation Guidelines for Companies and Individuals*, CLEARY GOTTLIEB 5 (Jan. 24, 2017), https://www.clearygottlieb.com/-/media/organize-archive/cgsh/files/publication-pdfs/alert-memos/2017/alert-memo-201716.pdf.

488. Robert Houck et al., *CFTC Gives Guidance on Cooperation*, CLIFFORD CHANCE (Jan. 29, 2017), https://www.cliffordchance.com/briefings/2017/01/cftc_gives_guidanceoncooperation.html.

489. *See, e.g.*, David Meister et al., *Inside The CFTC's New Advisories on Cooperation*, LAW360 (Feb. 8, 2017, 11:34 AM), https://www.law360.com/articles/889615/inside-the-cftc-s-new-advisories-on-cooperation ("Until an entity knows with greater certainty what benefit it can expect to receive in return for self-reporting information to the CFTC, the utility and effectiveness of this new guidance will naturally be limited.").

490. *See* U.S. COMMODITY FUTURES TRADING COMM'N, ENFORCEMENT ADVISORY: UPDATED ADVISORY ON SELF REPORTING AND FULL COOPERATION 1 (Sept. 25, 2017), http://www.cftc.gov/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfadvisoryselfreporting0917.pdf [hereinafter UPDATED ADVISORY] (updating the January 2017 Advisories by providing additional information concerning voluntary disclosures and cooperation credit).

491. *See id.* at 2–3. In November 2018 the DOJ relaxed the requirement of the Yates Memorandum that in order for a company to be eligible for any credit for cooperation all relevant facts about the individuals involved in the company's misconduct must be provided. Now, in order to be eligible for cooperation credit in a criminal case, a company must identify every individual who was substantially involved in or responsible for the criminal conduct. In order to be eligible for credit in a civil case, "a company must identify all wrongdoing by senior officials, including members of senior management or the board of directors." *See* Rod J. Rosenstein, Deputy Att'y Gen., U.S. Dep't of Justice, Remarks at the American Conference Institute's 35th International Conference on the Foreign Corrupt Practices Act (Nov. 29, 2018), https://www.justice.gov/opa/speech/deputy-attorney-general-rod-j-rosenstein-delivers-remarks-american-conference-institute-0. These changes will likely make it easier for companies to obtain cooperation credit. *See* John Nowak, *A Welcome DOJ Shift on Cooperation Credit*, LAW360 (Dec. 4, 2018, 1:10 PM), https://www.law360.com/banking/articles/1107289/a-welcome-doj-shift-on-cooperation-credit. By September 2019 the CFTC had not yet amended its Advisories to conform to this revision of the Yates Memorandum.

disclosure has become the program's most important driver, in a nod to the CFTC's limited resources.

The CFTC's Division of Enforcement has characterized its cooperation and self-reporting program as one of the "most aggressive tools we have at our disposal,"[492] and the NPAs entered into by the Commission in the Citigroup spoofing cases discussed *supra* reflect an important extension of the program.[493] However, to date the program does not appear to have spurred self-reporting of spoofing. Of the nine spoofing enforcement actions commenced by the CFTC in fiscal year 2017, only one involved self-reporting.[494] One likely explanation is that the September 2017 update, like the January 2017 Advisories, failed to quantify the financial benefits that may attach to self-reporting. In extraordinary circumstances the Division of Enforcement may recommend a declination of enforcement—as where misconduct is pervasive across an industry and the company or individual is the first to self-report[495]—but otherwise there is no blueprint for calculating benefits.[496] There is no guarantee of a declination for self-disclosure.

While self-reporting has been limited, the program has generated cooperation in numerous recent spoofing cases. The eight spoofing enforcement actions that the CFTC announced in January 2018 stemmed from the Commission's cooperation program.[497] More recently, in June 2019 Merrill Lynch Commodities Inc. resolved spoofing investigations commenced by the DOJ and CFTC for a combined $36.5 million, which reflected a discount based on Merrill Lynch's significant cooperation.[498] In September 2018 Chicago-based Geneva Trading USA LLC agreed to pay a civil penalty of $1.5 million to resolve allegations that three of its traders spoofed on the CME from 2013 to 2016.[499] This penalty reflected a discount that Geneva received in light of its cooperation, its early resolution of the matter, and the remedial steps it undertook.[500] Similarly, in September 2018 Mizuho Bank agreed to pay a civil penalty of $250,000 to resolve allegations that it engaged in multiple acts of spoofing on the CME and CBOT. This penalty reflected a significant reduction that Mizuho received in light of its cooperation

492. U.S. COMMODITY FUTURES TRADING COMM'N, 2018 ANNUAL REPORT ON THE DIVISION OF ENFORCEMENT 4 (Nov. 2018), https://www.cftc.gov/sites/default/files/2018-11/ENFAnnualReport111418_0.pdf.

493. COVINGTON & BURLING LLP, CFTC ENFORCEMENT AND REGULATORY REPORT: 2017 ACTIVITY AND OUTLOOK 4 (Aug. 28, 2017), https://www.cov.com/-/media/files/corporate/publications/2017/08/cftc_enforcement_and_regulatory_report.pdf.

494. Brez et al., *supra* note 99.

495. UPDATED ADVISORY, *supra* note 490, at 3.

496. PAUL J. PANTANO, JR. ET AL., CFTC ENFORCEMENT DIVISION DANGLES SELF-REPORTING CARROT: IS IT WORTH TAKING A BITE? 1–2 (Sept. 28, 2017), http://www.willkie.com/~/media/Files/Publications/2017/09/CFTC_Enforcement_Division_Dangles_SelfReporting_Carrot_Is_it_worth_taking_a_bite.pdf.

497. McDonald Statement, *supra* note 44.

498. Alison Noon, *Merrill Lynch Admits Spoofing, Settles U.S. Probes for $36.5M*, LAW360 (June 25, 2019, 10:24 PM), https://www.law360.com/articles/1172897/merrill-lynch-admits-spoofing-settles-us-probes-for-36-5m.

499. *In re* Geneva Trading USA, LLC, CFTC Docket No. 18-37 (C.F.T.C. Sept. 20, 2018), https://www.cftc.gov/sites/default/files/2018-09/enfgenevaorder092018.pdf; Dean Seal, *Chicago-based Trading Co. to Pay $1.5 Million Over 'Spoofing' Claims*, LAW360 (Sept. 20, 2018, 4:54 PM), https://www.law360.com/articles/1084699/chicago-based-trading-co-to-pay-1-5m-over-spoofing-claims.

500. *In re* Geneva Trading USA, LLC, CFTC Docket No. 18-37, at 3 (C.F.T.C. Sept. 20, 2018), https://www.cftc.gov/sites/default/files/2018-09/enfgenevaorder092018.pdf.

and remediation.[501] And earlier, in August 2017, Bank of Tokyo Mitsubishi-UFJ agreed to pay a civil penalty of $600,000 to resolve allegations that one of its traders spoofed on the CME and CBOT during the period 2009 to 2014.[502] This modest penalty reflected a substantial discount pegged to the bank's extensive efforts to self-report, cooperate, and remediate.[503]

At least one CFTC Commissioner has asserted that the CFTC's self-reporting and cooperation program has contributed to a decline in spoofing.[504] It is not clear that this is true. If less spoofing has been detected since the inception of the program it could simply be that perpetrators have become more careful about concealment. The CFTC could enhance its cooperation program by more frequently bifurcating spoofing cases between liability and penalty stages. An example of bifurcation occurred in October 2018 in the CFTC's enforcement action against spoofer Kamaldeep Gandhi. In that case, Gandhi entered into a cooperation agreement with the Enforcement Division, pursuant to which he admitted to his own conduct and provided evidence concerning other traders who were involved in the spoofing scheme.[505] The agreement bound Gandhi to provide continued cooperation during the course of the CFTC's broader investigation and the amount of his penalty was reserved for determination once his cooperation was completed.[506] A second example of bifurcation in a spoofing case occurred in February 2019, when the trader agreed to a three-year trading ban but determination of his fine was postponed pending the outcome of his agreement to cooperate.[507] These two cases mirrored the general practice in criminal cases, where sentencing occurs sometime after a guilty plea is entered. Expanded use of such a practice by the CFTC could enhance its enforcement efforts.

One caveat is that the CFTC's cooperation program may backfire against the government in the rare instances when spoofing cases are tried. Recall that Flotron was acquitted in April 2018 by a Connecticut federal jury in the second spoofing case to advance to trial. While it is unclear why the jury acquitted, one pillar of the defense trial strategy was to vigorously attack prosecution witnesses who had struck cooperation deals with the CFTC.[508] This pillar was not unique. Evidence obtained from immunized or co-conspirator witnesses invariably is subject to intense cross-examination at trial.[509] Sarao,

501. Press Release, U.S. Commodity Futures Trading Comm'n, CFTC Finds Mizuho Bank, Ltd. Engaged in Spoofing of Treasury Futures and Eurodollar Futures (Sept. 21, 2018), https://www.cftc.gov/PressRoom/PressReleases/7800-18.

502. *In re* Bank of Tokyo Mitsubishi-UFJ, Ltd., CFTC Docket No. 17–21, at 2 (C.F.T.C. Aug. 7, 2017), https://www.cftc.gov/sites/default/files/idc/groups/public/@lrenforcementactions/documents/legalpleading/enftokyomitsubishiorder080717.pdf.

503. *Id.* at 3.

504. *Anti-Spoofing Enforcement: 2018 Year in Review*, PAUL, WEISS, RIFKIND, WHARTON & GARRISON LLP 5 (Jan. 7, 2019), https://www.paulweiss.com/media/3978373/7jan19-anti-spoofing-enforcement-2018-year-in-review.pdf.

505. *In re* Kamaldeep Gandhi, CFTC Docket No. 19-01, at 2–5 (C.F.T.C. Oct. 11, 2018), https://www.cftc.gov/sites/default/files/2018-10/enfkamaldeepdandhiorder101118.pdf.

506. *Id.* at 8–10.

507. Rachel Graf, *CFTC Says Spoofer's Cooperation Will Determine Fine*, LAW360 (Feb. 25, 2019, 6:46 PM), https://www.law360.com/articles/1132388/cftc-says-spoofer-s-cooperation-will-determine-fine.

508. Mary P. Hansen & James G. Lundy, *The Government Suffers a Spoofing Setback*, NAT'L L. REV. (Apr. 27, 2018), https://www.natlawreview.com/article/government-suffers-spoofing-setback.

509. Rachel Cannon & Kristina Liu, *Why the CFTC's New Use of NPAs is Significant*, LAW360 (July 31, 2017, 10:51 AM), https://www.law360.com/articles/949009/why-the-cftc-s-new-use-of-npas-is-significant.

the star government witness during the 2019 spoofing trial of Thakkar, the software developer, also was subject to damaging cross-examination. He testified, for example, that he and Thakkar never agreed to spoof the market,[510] and Thakkar obtained a mistrial.

A second caveat is that cooperation with the CFTC may backfire against defendants. Recall that Coscia settled with the CFTC prior to his criminal trial. This deal failed to prevent criminal prosecution and Coscia's participation in the CFTC's pre-settlement investigation provided the DOJ with ammunition that later resulted in his criminal conviction. When the Seventh Circuit affirmed Coscia's conviction one of the items it cited for evidence of his intent to cancel orders prior to execution was his deposition, taken by the CFTC.[511] Coscia could have asserted his Fifth Amendment right against self-incrimination during the CFTC investigation, but if he had done so an adverse inference could have been drawn against him at trial.[512]

B. The CFTC's Whistleblower Program

The CFTC's low-profile whistleblower program also may help the Commission advance its spoofing and layering enforcement agenda. The program was established in 2010 after the DFA amended the CEA by adding Section 23 (Commodity Whistleblower Incentives and Protection).[513] Section 23 established a program pursuant to which the CFTC will pay awards—based on collected monetary sanctions—to eligible whistleblowers who voluntarily provide the Commission with original information about CEA violations that lead either to a covered judicial or administrative action (those resulting in monetary sanctions exceeding $1 million) or a related action.[514] The CFTC enhanced the program in 2017 when it prohibited employers from retaliating against whistleblowers and taking steps that would impede would-be whistleblowers from communicating with the CFTC about potential misconduct.[515] The 2017 amendments also enhanced the awards claim review process and clarified when a whistleblower may receive an award in both the CFTC's action and in a related action.[516]

The 2017 program enhancements may be having a salutary effect. In fiscal year 2018 the CFTC received more whistleblower tips and complaints (760) than it had received in any prior year.[517] The 2018 total represents a 63% increase over the number

510. Christopher P. Eby et al., *Bellwether Spoofing Case Goes to Trial in Chicago*, WHITE COLLAR BRIEFLY (Apr. 4, 2019), https://www.whitecollarbriefly.com/2019/04/04/bellwether-spoofing-case-goes-to-trial-in-chicago/.

511. United States v. Coscia, 866 F.3d 782, 790 (7th Cir. 2017).

512. WILLIAM J. STELLMACH ET AL., TO SPOOF OR NOT TO SPOOF: THE DOJ ANSWERS THE QUESTION, 39 FUTURES & DERIVATIVES L. REP. (Jan. 2019), https://www.willkie.com/~/media/Files/Publications/2019/01/To_Spoof_or_Not_To_Spoof.pdf.

513. 7 U.S.C. § 26 (2018).

514. *Id. See also* LISA J. BANKS, THE CFTC WHISTLEBLOWER PRACTICE GUIDE 1–5 (2017), https://www.kmblegal.com/sites/default/files/cftc-whistleblower-practice-guide-2017.pdf (describing mechanics of the program).

515. *See* 17 C.F.R. §§ 165.19–20 (2019); *see also* Gideon Mark, *Confidential Witness Interviews in Securities Litigation*, 96 N.C. L. REV. 789, 802 (2018) (describing enhancements to CFTC whistleblower program).

516. *See* 17 C.F.R. §§ 165.7 (f-l), 165.11(a) (2019).

517. U.S. COMMODITY FUTURES TRADING COMM'N, 2018 ANNUAL REPORT ON THE WHISTLEBLOWER PROGRAM AND CUSTOMER EDUCATION INITIATIVES 4 (Oct. 2018), https://whistleblower.gov/sites/whistleblower/files/2018-

of tips and complaints received in 2017,[518] and it includes tips concerning spoofing and market manipulation.[519] Likewise, in 2018 the CFTC issued more whistleblower awards (five) and paid more money (approximately $75 million) than it had in all prior years combined.[520] The 2018 totals included both the program's largest award (more than $45 million) and its first award to a foreign whistleblower.[521] In fiscal year 2019 the number of whistleblower tips and complaints received by the CFTC declined to 455 (almost level with the number received in 2017), but by the end of 2019 the CFTC still had paid approximately $100 million to whistleblowers since the inception of the program.[522]

The foregoing developments suggest that the CFTC's whistleblower program may help compensate for the Commission's resource constraints,[523] and in 2018 the CFTC described the program as "an integral component" in its enforcement arsenal.[524] Indeed, whistleblowers were instrumental in the initiation of the CFTC's enforcement actions against spoofers Sarao in 2015 and Igor Oystacher in 2016.[525] More generally, in 2018 the CFTC estimated that 30–40% of its active investigations involved whistleblowers.[526] Subsequently, in 2019 the CTC issued multiple alerts encouraging the submission of whistleblower tips about misconduct that includes virtual currency fraud, as part of a concerted effort to increase the whistleblower program's visibility.[527] However, the

---

10/FY18%20Annual%20Report%20to%20Congress%20Final.pdf [hereinafter 2018 ANNUAL REPORT].

518. *Id.*

519. *Id.* at 5.

520. U.S. COMMODITY FUTURES TRADING COMM'N, 2018 ANNUAL REPORT ON THE DIVISION OF ENFORCEMENT 14 (Nov. 2018), https://www.cftc.gov/sites/default/files/2018-11/ENFAnnualReport111418_0.pdf. By comparison, in fiscal year 2018 the SEC awarded more than $168 million to 13 individuals under its whistleblower program, which also was established pursuant to the DFA. U.S. SEC. & EXCH. COMM'N, 2018 ANNUAL REPORT TO CONGRESS ON THE WHISTLEBLOWER PROGRAM 1 (Nov. 15, 2018), https://www.sec.gov/files/sec-2018-annual-report-whistleblower-program.pdf. From 2010 (when it commenced its whistleblower program) to the end of fiscal year 2019 the SEC awarded approximately $387 million to 67 individuals. U.S. SEC. & EXCH. COMM'N, 2019 ANNUAL REPORT TO CONGRESS ON THE WHISTLEBLOWER PROGRAM 1 (Nov. 15, 2019), https://www.sec.gov/files/sec-2019-annual-report-whistleblower-program.pdf. In 2019 the SEC received more than 5200 whistleblower tips and awarded approximately $60 million to eight individuals. *Id.* at 1, 2.

521. 2018 ANNUAL REPORT, *supra* note 517, at 3; Jennifer Kennedy Park et al., *A CFTC Whistleblower Award Breaks New Ground*, LAW360 (Apr. 2, 2019, 3:44 PM), https://www.law360.com/articles/1145275/a-cftc-whistleblower-award-breaks-new-ground.

522. U.S. COMMODITY FUTURES TRADING COMM'N, 2019 ANNUAL REPORT ON THE WHISTLEBLOWER PROGRAM AND CUSTOMER EDUCATION INITIATIVES 3, 5 (Oct. 2019), https://whistleblower.gov/sites/whistleblower/files/2019-10/FY19%20Annual%20Whistleblower%20Report%20to%20Congress%20Final.pdf.

523. *See* Meric Sar, *Dodd-Frank and the Spoofing Prohibition in Commodities Markets*, 22 FORDHAM J. CORP. & FIN. L. 383, 411 (2017) (arguing that CFTC whistleblower program "may reduce informational asymmetries").

524. *See* Press Release, U.S. Commodity Futures Trading Comm'n, CFTC Announces its Largest Ever Whistleblower Award of Approximately $35 Million (July 12, 2018), https://www.cftc.gov/PressRoom/PressReleases/7753-18.

525. Phillips & Cohen, *Hedge Fund Plays an Unusual Role in CFTC Whistleblower Spoofing Case* (May 10, 2016), https://www.phillipsandcohen.com/hedge-fund-plays-unusual-role-cftc-whistleblower-spoofing-case/.

526. *See* Kathleen McArthur et al., *Whistleblowers Increasingly Shape SEC, CFTC Enforcement*, LAW360 (July 1, 2019, 4:44 PM), https://www.law360.com/articles/1172830/whistleblowers-increasingly-shape-sec-cftc-enforcement.

527. *See* Rachel Graf, *CFTC Calls for Whistleblower Tips as Enforcement Evolves*, LAW360 (Sept. 19,

process for granting awards remains slow and cumbersome,[528] and these impediments may constrain further development. Another constraint may be unresolved concerns about how the whistleblower program dovetails with the CFTC's cooperation program.[529] For example, the DOJ only awards credit for voluntary self-disclosure, which means that prosecutors may reject eligibility for credit if they conclude that whistleblowers prompted the disclosure.

XII. THE ROLE OF SROS IN REGULATING SPOOFING AND LAYERING

As indicated above, the CFTC is constrained in its anti-spoofing efforts, primarily by its limited budget. These resource constraints are only partially offset by the Commission's cooperation and whistleblowing tools. This suggests the question of whether SROs can bridge the regulatory gap. The issue is explored below.

A. The Current Multi-Tiered System of Regulation

In the United States, regulation of the futures and equities markets is characterized by a multi-tiered approach that is heavily reliant on SROs.[530] Self-regulation differs from pure private ordering in part in that the former, unlike the latter, entails government agencies such as the CFTC and SEC imposing formalities for the adoption or amendment of rules, policies, and procedures.

SROs have responsibility for much of the day-to-day oversight of the futures and securities markets in this country.[531] SROs in both markets include exchanges and associations. On the futures side, the exchanges are boards of trade registered as designated contract markets (DCMs). Futures contracts can be traded in the United States only on exchanges approved by the CFTC as DCMs.[532] Self-regulation in the futures markets primarily occurs under the umbrella of CME Group, Inc., a publicly traded entity that operates four SROs and DCMs—CME, CBOT, NYMEX, and NYMEX's subsidiary COMEX (collectively, the Exchanges).[533] CME Group's electronic trading system for its

---

2019, 6:53 PM), https://www.law360.com/securities/articles/1200344/cftc-calls-for-whistleblower-tips-as-enforcement-evolves?nl_pk=8b240a19-db95-4ea6-91e0-b797c8600de2&utm.

528. *See, e.g.*, Erika Kelton, *CFTC Whistleblower Program Gains Momentum with Awards Totaling $75 Million*, FORBES (Aug. 27, 2018, 4:15 PM), https://www.forbes.com/sites/erikakelton/2018/08/27/cftc-whistleblower-program-gains-momentum-with-awards-totaling-75-million/#510e5fea68b9 ("The process for making whistleblower awards is far too slow.").

529. *See* Paul M. Architzel et al., *Developments in CFTC Cooperation Program*, 38 FUTURES & DERIVATIVES L. REP. (2018) (discussing intersection of the two programs).

530. *See, e.g.*, Scopino, *supra* note 390, at 240 ("Self-regulation is the hallmark of the U.S. futures industry.").

531. *See* Samuel D. Posnick, Note, *A Merry-Go-Round of Metal and Manipulation: Toward a New Framework of Commodity Exchange Self-Regulation*, 100 MINN. L. REV. 441, 461 (2015) ("Notwithstanding its oversight responsibilities, the CFTC has generally deferred to commodity exchange self-regulation."); U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-12-625, SECURITIES REGULATION: OPPORTUNITIES EXIST TO IMPROVE SEC'S OVERSIGHT OF THE FINANCIAL INDUSTRY REGULATORY AUTHORITY 1 (May 2012), https://www.gao.gov/assets/600/591222.pdf (noting that SROs exercise day-to-day oversight of securities markets).

532. U.S. Futures Exch., LLC v. Bd. of Trade of City of Chi., 346 F. Supp. 3d 1230, 1237 (N.D. Ill. Oct. 2018).

533. *See* Press Release, U.S. Commodity Futures Trading Comm'n, CFTC Charges United Arab Emirates Residents Heet Khara and Nasim Salim with Spoofing in the Gold and Silver Futures Markets (May 5, 2015),

DCMs is CME Globex. Trading on this platform—where the vast majority of trading on the Exchanges occurs—is anonymous.[534] Globex traders are able to enter, modify, and cancel bids and offers in milliseconds from anywhere in the world through a portal to the Globex platform.

The foregoing arrangement is controversial. When the New York Stock Exchange became a publicly traded for-profit entity in 2006, it was required to spin-off its SRO functions to FINRA's predecessor.[535] No similar requirement has ever been imposed on the for-profit CME Group, which annually handles approximately three billion contracts worth $1 quadrillion.[536]

The CFTC exercises oversight authority over all of the Exchanges, which police their own markets. Indeed, the status of the Exchanges as DCMs imposes a duty on them to self-regulate.[537] The CFTC also exercises oversight over the association governing the futures industry—the National Futures Association (NFA). The nationwide and industry-sponsored NFA, established in 1982, is the over-arching SRO for the industry.[538] Membership is mandatory for all entities conducting business on futures exchanges in the United States.[539] The NFA has been described as the CFTC's "first-line regulator."[540] However, the NFA can only exercise authority over its members, whereas the CFTC has authority over persons that trade or influence the trading of derivatives contracts, regardless of their CFTC registration status.[541] The NFA is the futures counterpart to FINRA and mirrors it in structure and function.[542] FINRA, overseen by the SEC,[543] regulates the securities industry by requiring registration of broker-dealers and subjecting FINRA members to the organization's rules, examinations, and enforcement authority.[544]

There is widespread agreement that the regulation of financial services exhibits a high degree of industry capture,[545] as a function of multiple factors. Both FINRA and the

---

https://www.cftc.gov/PressRoom/PressReleases/pr7171-15 (explaining the structure of CME Group).

534. CME GROUP, *A Trader's Guide to Futures: Thought Leadership with a Global Perspective* 11 (2013), https://www.cmegroup.com/education/files/a-traders-guide-to-futures.pdf ("Trading is open, fair, and anonymous."). Anonymity presents an obstacle to plaintiffs who seek to pursue private actions under the CEA. Identification of the trading firms responsible for spoofing or layering in futures markets can only be made by the relevant SRO (or the CFTC using SRO data), and thus identification by plaintiffs may require judicial intervention. *See, e.g.*, HTG Cap. Partners, LLC v. Does, No. 15 C 02129, 2016 WL 612861 (N.D. Ill. Feb. 16, 2016).

535. Volcker Alliance, *supra* note 474, at 95.

536. *See* Jessica Corso, *How Chicago Became the Center of a Spoofing Test Case*, LAW360 (July 21, 2016, 9:15 PM), https://www.law360.com/articles/819235/how-chicago-became-the-center-of-a-spoofing-test-case.

537. *See* Volcker Alliance, *supra* note 474, at 95.

538. *See* Nicholas v. Sand Stone & Co, 224 F.3d 179, 181 n.6 (3d Cir. 2000) (noting that NFA "functions as the futures industry's self-regulatory organization"); Troyer v. Nat'l Futures Ass'n, 290 F. Supp. 3d 874, 881 (N.D. Ind. 2018) (noting that NFA operates under CFTC oversight).

539. CFTC v. Levy, 541 F.3d 1102, 1104 n.4 (11th Cir. 2008).

540. Volcker Alliance, *supra* note 474, at 94.

541. Brian Daly & Jacob Preiserowicz, *A New Normal in Commodity Derivatives Enforcement Actions*, LAW360 (Oct. 3, 2018, 4:35 PM), https://www.law360.com/articles/1089133/a-new-normal-in-commodity-derivatives-enforcement-actions.

542. Derek Fischer, Note, *Dodd-Frank's Failure to Address CFTC Oversight of Self-Regulatory Organization Rulemaking*, 115 COLUM. L. REV. 69, 96 (2015).

543. *See* 15 U.S.C. § 78o-3 (2018) (outlining requirements for SEC oversight of registered securities associations).

544. Fischer, *supra* note 542, at 77.

545. *See, e.g.*, Benjamin P. Edwards, *The Dark Side of Self-Regulation*, 85 U. CIN. L. REV. 573, 606

NFA are funded exclusively by their members, in the form of membership dues and/or assessment fees.[546] They are further subject to capture because their governance structures include numerous industry representatives. Ten of the 24 seats on FINRA's Board of Governors are designated for industry members,[547] the public representatives often include former high-level industry executives,[548] and the securities industry indirectly selects the investor representatives who serve as public members of the board.[549] Similarly, pursuant to the NFA's Articles of Incorporation, the composition of its Board of Directors is weighted heavily in favor of non-public industry members[550] and various public representatives on the board have been closely affiliated with industry groups.[551]

The result of industry capture is that SROs manifest an inherent conflict between their regulatory functions and the interests of their financially supportive members and shareholders. The conflict has been widely observed[552]—even by the SEC.[553] In order to remain viable, SROs must attract order flows. This requirement renders them less inclined—perhaps significantly less inclined—to vigorously enforce rules against their constituents.[554] The absence of vigorous enforcement is explored below.

B. The Exchanges Adopt Express Anti-Spoofing Rules

In August 2014—four years after the enactment of the DFA—the Exchanges announced the adoption of new Rule 575 (Disruptive Practices Prohibited), effective in September 2014.[555] Concurrent with the adoption of Rule 575, the Exchanges adopted

---

(2017); Yesha Yadav, *The Failure of Liability in Modern Markets*, 102 VA. L. REV. 1031, 1091 (2016) (observing that dual roles of exchanges as overseers of traders and institutions dependent on traders for profit and prestige "stand in profound tension").

546. Linda Rittenhouse, CFA INST., *Self-Regulation in the Securities Markets: Transitions and New Possibilities* 17, 21 (Aug. 2013), https://www.cfainstitute.org/-/media/documents/article/position-paper/self-regulation-in-securities-markets-transitions-new-possibilities.pdf.

547. *See* FIN. INDUS. REGULATORY AUTH., *Board of Governors*, https://www.finra.org/about/finra-board-governors (last visited Sept. 15, 2019).

548. Edwards, *supra* note 545, at 587, 589.

549. *Id.* at 614–15.

550. *See* Nat'l Futures Ass'n, *Articles of Incorporation, Art. VII Board of Directors*, https://www.nfa.futures.org/rulebook/rules.aspx?Section=2 (last visited Nov. 3, 2019) (showing the distribution).

551. Letter from Angela Canterbury & Michael Smallberg to Sen. Debbie Stabenow et al., PROJECT ON GOVERNMENT OVERSIGHT, at 2 (July 23, 2012), http://www.pogoarchives.org/m/fo/nfa-letter-20120723.pdf.

552. *See, e.g.*, *id.* at 1 ("Groups such as NFA are inherently conflicted because they are funded by the firms they oversee."); Fischer, *supra* note 542, at 81 ("At a general level, delegation to self-regulators implicates a double agency problem: The interests of the SROs do not always line up with the interests of the government regulator and, by extension, the interests of the public.").

553. Press Release, U.S. Sec. & Exch. Comm'n, *SEC Charges CBOE for Regulatory Failures* (June 11, 2013), https://www.sec.gov/news/press-release/2013-2013-107htm (remarking that SROs "must sufficiently manage an inherent conflict that exists between self-regulatory obligations and the business interests of an SRO and its members").

554. *See* Public Statement from Luis A. Aguilar, former Commissioner, U.S. Sec. & Exch. Comm'n, *The Need for Robust SEC Oversight of SROs* (May 8, 2013), https://www.sec.gov/news/public-statement/2013-spch050813laahtm; Edwards, *supra* note 545, at 608 (observing that SROs may be "particularly lethargic" enforcers in situations where actions in the public's interest would undercut private profits).

555. *See* Letter from Christopher Bowen, Managing Director and Chief Regulatory Counsel, CME Group,

CME Group Market Regulation Advisory Notice RA1405-5, which set forth the text of new Rule 575 and provided additional guidance on types of prohibited disruptive order entry and trading practices which the Exchanges deemed to be abusive to the orderly conduct of trading or the fair execution of transactions.[556] Notice RA1405-5 specified that new Rule 575 prohibits, *inter alia*, the type of activity identified by the CFTC as spoofing, and the rule largely tracks the provisions of the amended CEA.[557] However, the CME Group—unlike the CFTC with respect to Section 4c(a)(5)(C)—regards recklessness as a sufficient level of scienter to constitute a spoofing violation,[558] and the CME appears to have adopted a "very expansive concept of recklessness."[559] The adoption of Rule 575 marked the first time the Exchanges expressly banned spoofing, although their existing catch-all Rule 432 (General Offenses) already encompassed the conduct without identifying it by name.[560] Rule 432 was amended in 2017 to more closely track the CFTC's Rule 180.1.[561]

Notice RA1405-5 also addressed iceberg orders. It specified that the use of such orders does not constitute an automatic violation of Rule 575, but a violation may result if an iceberg order is placed as part of a scheme to mislead other market participants.[562] An example is where "a market participant pre-positions an iceberg on the bid and then layers larger quantities on the offer to create artificial downward pressure that results in the iceberg being filled."[563] Notice RA1405-5 has been superseded three times since its issuance—most recently in April 2019, when the Exchanges adopted CME Group RA1904-5.[564] No revision substantially modified the parameters of Rule 575 or the foregoing approach to iceberg orders.

In December 2014, ICE announced the adoption of new Rule 4.02(l) to consolidate its rules prohibiting disruptive trading and providing additional clarification concerning

---

to Christopher J. Kirkpatrick, Office of the Secretariat, CFTC (Aug. 28, 2014), https://www.scribd.com/document/239096461/Cme-Rule-575.

556. *Id.* at Exh. B.

557. *Id.* at 4 ("Rule 575 prohibits the type of activity identified by the [CFTC] as 'spoofing,' including submitting or cancelling multiple bids or offers to create a misleading appearance of market depth and submitting or cancelling bids or offers with intent to create artificial price movements upwards or downwards.").

558. Overdahl & Park, *supra* note 74, at 4.

559. Clifford C. Histed, *A Look at the 1st Criminal 'Spoofing' Prosecution: Part 2*, LAW360 (Apr. 21, 2015, 10:05 AM), https://www.law360.com/articles/645567/a-look-at-the-1st-criminal-spoofing-prosecution-part-2.

560. *See* Kara Scannell & Nicole Bullock, *CME Faces Scrutiny Over Warning Signs on 'Flash Crash Trader*,*'* FIN. TIMES (Apr. 23, 2015), https://www.ft.com/content/47959da4-e9c0-11e4-b863-00144feab7de (reporting that, in the three years before Rule 575 was adopted, CME exchanges brought more than 40 disciplinary actions under Rule 432 for spoofing, misleading, or intentionally/recklessly disruptive trading); Scopino, *supra* note 100, at 1096 (noting that CME has sanctioned traders for spoofing-type conduct at least since 2002).

561. *See* CME GROUP, SPECIAL EXECUTIVE REPORT, S-7844, AMENDMENTS TO CME/CBOT/NYMEX/COMEX/CME SEF RULE 432 (GENERAL OFFENSES) (Feb. 3, 2017), https://www.cmegroup.com/content/dam/cmegroup/notices/market-regulation/2017/02/SER-7844.pdf ("The additional language more closely tracks the prohibitions set forth in CFTC Regulation 180.1 . . . .").

562. Bowen, *supra* note 555, Exh. B, at 8.

563. *Id.*

564. *See* CME GROUP, MARKET REGULATION ADVISORY NOTICE, RA1904-5 (Apr. 25, 2019), https://www.cmegroup.com/content/dam/cmegroup/notices/market-regulation/2019/04/RA1904-5.pdf.

types of prohibited activity.[565] ICE owns 23 exchanges globally and is the third-largest exchange group in the world (behind CME Group and Hong Kong Exchanges and Clearing Ltd).[566] The new rule, which became effective in January 2015, does not address spoofing by name. It generally tracks Rule 575 previously adopted by the Exchanges, but there are some differences which are revealed by comparing the guidance provided in RA1405-5 with analogous guidance provided by a Frequently Asked Questions issued by ICE and updated in August 2017. One key difference concerns their respective approaches to finding intent. Pursuant to Rule 575 and RA1405-5, "[w]here the conduct was such that it more likely than not was intended to produce a prohibited disruptive consequence without justification, intent may be found."[567] The CME does not specify what justification warrants disruption. In contrast, ICE Rule 4.02(l) omits the "without justification" language.[568] Omission of this safe harbor probably makes proof of intent easier to establish in ICE enforcement actions.

C. Enforcement by the NFA and the Exchanges

CME Group spends approximately $45 million annually to police traders,[569] and among all stakeholders it is best-positioned technologically to detect spoofing in futures markets.[570] In 2018, CME Group commenced more than 50 disciplinary actions under Rule 575, compared with 42 in 2017 and 9 in 2016.[571] Nevertheless, this enforcement effort has been widely regarded as lax. CME Group's permissive approach has been noted by many critics, including the CFTC,[572] which relies on the Exchanges' enforcement activity to supplement its own.[573]

A major example of CME Group's enforcement failure involves Sarao, the spoofing trader charged with contributing to the 2010 flash crash. CME identified a high volume

565. ICE FUTURES U.S., EXCHANGE NOTICE, DISRUPTIVE TRADING PRACTICES (Dec. 29, 2014), https://www.theice.com/publicdocs/futures_us/exchange_notices/IFUS_Disruptive_Practices_Notice.pdf.

566. James Chen, *Intercontinental Exchange (ICE)*, INVESTOPEDIA (Apr. 7, 2019), https://www.investopedia.com/terms/i/intercontinentalexchange.asp.

567. *See* Bowen, *supra* note 555, at 10.

568. *See* Press Release, Exchange Notice, ICE Futures U.S., Disruptive Trading Practices FAQs, Q&A (Aug. 2017), https://www.theice.com/publicdocs/futures_us/Futures_US_Disruptive_Practice_FAQ.pdf (omitting "without justification" from consideration); Douglas Cahanin & Zachary Ziliak, *Take Two on Disruptive Trading Rules: Comparing CME Rule 575 and ICE Rule 4.02*, DERIVATIVES L. BLOG (Dec. 31, 2014), http://derivativeslawblog.blogspot.com/2014/12/take-two-on-disruptive-trading-rules.html.

569. Matthew Leising, *Spoofing*, BLOOMBERG (Jan. 19, 2017, 1:01 PM), https://www.bloomberg.com/quicktake/spoofing.

570. Roy Strom, *To Catch a Spoofer*, CHICAGO LAWYER (Apr. 1, 2016), https://www.chicagolawyermagazine.com/elements/pages/print.aspx?printpath=/Archives/2016/04/spoofing-April16&classname=tera.gn3article.

571. Gregory Meyer & Fan Fei, *Market Cops Step Up Fight Against Spoofing*, FIN. TIMES (Nov. 7, 2018), https://www.ft.com/content/2ccfa8de-e147-11e8-8e70-5e22a430c1ad. In 2018 ICE pursued discipline in approximately seven cases involving spoofing. William J. Stellmach et al., *To Spoof or Not to Spoof: The DOJ Answers the Question*, 39 FUTURE & DERIVATIVES L. REP. 1, 2 (Jan. 2019), https://www.willkie.com/~/media/Files/Publications/2019/01/To_Spoof_or_Not_To_Spoof.pdf.

572. Leising, *supra* note 569.

573. *Id. See, e.g.*, *id.*; CFTC Orders Commodity Trading Firm to Pay $3.4 Million Penalty for Attempting Manipulation of Agricultural Markets, CFTCLTR No. 7754-18, 2018 WL 3387517 (July 12, 2018) (imposing sanctions for manipulative schemes in agricultural market following joint investigation by CFTC and CME Group).

of cancelled orders by Sarao as early as 2009—one year prior to the crash—but permitted his spoofing to continue at least until April 2014, without referring him to the CFTC.[574] CME's persistent failure to discipline Sarao has been linked to the conflict of interest inherent in SROs.[575] In a second example, in November 2015, CBOT fined a trader, who violated Rule 432 by repeatedly spoofing soybean futures during a four-month period in 2012, a mere $40,000 and suspended him from trading on CME platforms for only 20 business days.[576] In a third example, in December 2017, CME Group fined an E-mini S&P 500 futures trader, who violated Rule 575 by repeatedly spoofing between September 2014 and January 2015, a mere $35,000 and suspended him from trading on CME platforms for only 25 days.[577] In a fourth example, in July 2019 CME Group fined a trader $50,000 and suspended his CME trading privileges for three weeks after he had spoofed on the CME for years.[578]

Those examples are not isolated. Rather, they are consistent with the Exchanges' overall casual enforcement. In November 2017, the CFTC's Division of Market Oversight issued a report summarizing its rule enforcement review of the disciplinary programs of CBOT, CME, COMEX, and NYMEX. The review included 85 cases closed during the period July 15, 2015 to July 15, 2016. Those 85 cases resulted in suspensions as short as ten days and permanent bars on membership against a mere ten respondents.[579] The 85 closed cases also produced 80 fines, which averaged less than $54,000 and ranged as low as $5000.[580] A review conducted by the CFTC's Division of Market Oversight three years earlier and released in November 2014 produced similar results. The 93 closed cases resulted in suspensions as short as five days, permanent membership bars against a mere ten respondents, and fines that averaged less than $68,000 and ranged as low as $5000.[581] A companion market surveillance rule

574. *See* Scannell & Bullock, *supra* note 560 (reporting that CME did not make referral of Sarao's conduct to CFTC).

575. *See id.* (noting CME's failure to discipline Sarao and stating that "[t]he conflict of interest at SROs has long been in focus").

576. *See* Press Release, Notice of Disciplinary Action, CME Group, CBOT 12-8862-BC (Nov. 6, 2015), https://www.cmegroup.com/tools-information/lookups/advisories/disciplinary/CBOT-12-8862-BC-MATTHEW-GARNER.html#pageNumber=1 (notice of disciplinary action for spoofing soybean futures market in 2012).

577. *See* Press Release, Notice of Disciplinary Action, CME Group, CME-15-0078-CD (Dec. 21, 2017), https://www.cmegroup.com/notices/disciplinary/2017/12/cme-15-0078-bc-dan-ostroff0.html#pageNumber=1 (notice of disciplinary action for placement of spoof orders in 2014 and 2015 for E-mini contracts); Michael Volpe, *CME Disciplinary Action Raises Eyebrows*, INDUS. SPREAD (Dec. 27, 2017), https://theindustryspread.com/cme-disciplinary-action-raises-eyebrows/.

578. *See* Dorothy Atkins, *Futures Trader Pays $150K to End CFTC's Spoofing Claims*, LAW360 (July 31, 2019, 8:29 PM), https://www.law360.com/capitalmarkets/articles/1184162/futures-trader-pays-150k-to-end-cftc-s-spoofing-claims. The parallel penalty imposed by the CFTC was somewhat greater than the penalty imposed by CME Group. *Id.*

579. U.S. Commodity Futures Trading Comm'n, Div. of Mkt. Oversight, Disciplinary Program Rule Enf't Rev. of CBOT, CME, COMEX, and NYMEX, at 6 (Nov. 30, 2017), https://www.cftc.gov/sites/default/files/idc/groups/public/@iodcms/documents/file/rercmegroupdisciplinary113017.pdf.

580. *Id.*

581. U.S. Commodity Futures Trading Comm'n, Div. of Mkt. Oversight, Disciplinary Program Rule Enf't Rev. of CBOT, CME, COMEX, and NYMEX, at 4 (Nov. 21, 2014), https://www.cftc.gov/sites/default/files/idc/groups/public/@iodcms/documents/file/rerdisciplinaryprogram112114.pdf.

enforcement review released by the CFTC in November 2014 concluded that NYMEX and COMEX were doing a poor job of detecting spoofing. The report noted that surveillance by NYMEX and COMEX during the review period did not result in the initiation of any spoofing cases. A number of cases were commenced, but almost all of them stemmed from complaints or tips submitted by trading firms.[582]

The foregoing fines are even less significant when compared with the sanctioning authority available to the Exchanges. During the review periods covered by the CFTC reports the CME Group's Business Conduct Committee panels had authority to impose sanctions of $1 million per offense, and that authority jumped to $5 million per offense in December 2016.[583]

In summary, it is probably unrealistic to expect SROs to bridge the regulatory or enforcement gap created by the CFTC's limited resources.[584]

XIII. A PRIVATE RIGHT OF ACTION

One final key issue addressed herein is whether there is, or should be, a private right of action to pursue violations of anti-spoofing provisions. The issue appears settled in spoofing cases involving alleged violations of the federal securities laws. SEC Rule 10b-5 provides an implied private right of action to plaintiffs asserting violations of Section 10(b)[585] and that right should be equally available to plaintiffs asserting spoofing claims under the Exchange Act. Plaintiffs are generally limited to parties that transacted with defendant (or in the relevant market), at prices made artificial by defendant's manipulative or deceptive device,[586] and they—unlike the SEC[587] and CFTC—must satisfy the basic elements of reasonable reliance, damages, and loss causation.[588] The strict pleading requirements of the Private Securities Litigation Reform Act[589] no doubt apply in spoofing cases alleging securities violations.[590]

582. U.S. Commodity Futures Trading Comm'n, Div. of Mkt. Oversight, Trade Practice Rule Enf't Rev.: The N.Y. Mercantile Exch. and The Commodity Exch., at 7 (Nov. 21, 2014), https://www.cftc.gov/sites/default/files/idc/groups/public/@iodcms/documents/file/rertradepractice112114.pdf; Tom Polansek, *CFTC Tells CME Group to Work More on 'Spoofing' Detection*, REUTERS (Nov. 24, 2014, 7:51 PM), https://www.reuters.com/article/us-cftc-cme-spoofing-idUSKCN0J82A520141125.

583. Anne M. Termine et al., *CME Implements Significant Penalty Increases for Futures and Swaps Trading Violations*, COVINGTON & BURLING LLP: FIN. SERVS. (Dec. 20, 2016), https://www.covfinancialservices.com/2016/12/cme-implements-significant-penalty-increases-for-futures-and-swaps-trading-violations/; *see also* Sanders, *supra* note 40, at 539–45 (arguing in favor of lifetime trading bans for spoofing traders).

584. *But see* Heinz, supra note 110, at 97–98 (arguing in favor of greater anti-spoofing enforcement role for Exchanges).

585. *See* Herman & McLean v. Huddleston, 459 U.S. 375, 380 (1983) (acknowledging that courts have "consistently recognized" a private right of action under Exchange Act Section 10(b) and Rule 10b-5).

586. *See, e.g.*, Caiola v. Citibank, N.A., 295 F.3d 312, 322 (2d Cir. 2002) (noting that standing to pursue private claim for securities fraud "is limited to actual purchasers or sellers of securities").

587. *See, e.g.*, SEC v. Goble, 682 F.3d 934, 943 (11th Cir. 2012) ("Because this is a civil enforcement action brought by the SEC, reliance, damages, and loss causation are not required elements.").

588. *See* CP Stone Fort Holdings, LLC v. Doe(s), Case No. 16 C 4991, 2017 WL 1093166, at *2 (N.D. Ill. Mar. 22, 2017) (identifying elements of spoofing claim under Section 10(b) and Rule 10b-5).

589. Securities Litigation Reform Act, Pub. L. 104-67, 109 Stat. 737 (1995) (codified in scattered sections of 15 U.S.C.).

590. *See CP Stone Fort Holdings*, 2017 WL 1093166, at *4 (discussing whether PSLRA applies in spoofing cases).

The issue is more complicated in spoofing cases commenced under the CEA. Section 22 of the CEA expressly provides a private right of action and enumerates the four exclusive circumstances in which such a right may be asserted.[591] Congress enacted this section after the Supreme Court ruled in 1982 that the CEA contained an implied private right of action.[592] Section 22 provides, *inter alia*, that an express private right of action may be asserted where a person has been harmed through a violation of the CEA that constitutes (i) "the use or employment of, or an attempt to use or employ . . . any manipulative device or contrivance in contravention of" CFTC-promulgated rules or (ii) "a manipulation of the price" of a commodity, future, or swap.[593] Section 22 thus identifies the conditions precedent to a private cause of action. Satisfaction of these conditions creates statutory standing. In addition, whereas courts have consistently rejected private claims for aiding and abetting under the Exchange Act,[594] the CEA expressly provides a private right of action for willful aiding and abetting of a primary violation.[595] A private right of action can arise under Section 22 even if the commodity is traded on a foreign exchange.[596]

Private plaintiffs in several recent cases have relied on § 22 to assert spoofing claims under CEA Section 4c(a)(5)(C), CEA Section 6(c), and Rule 180.1,[597] or for creating the circumstances under which spoofing was permitted to occur.[598] In one such case the federal district court granted defendants' motion to compel arbitration under CBOT Rule 600.A[599]—which requires arbitration of claims among CBOT members that relate to or arise out of any transaction on that exchange or subject to its rules—and dismissed the

591. *See* Klein & Co. Futures, Inc. v. Bd. of Trade of New York, 464 F.3d 255, 259 (2d Cir. 2006) ("CEA § 22 enumerates the only circumstances under which a private litigant may assert a private right of action for violations of the CEA."). *Accord* MBC Fin. Serv. Ltd. v. Boston Merchant Fin. Ltd., 15-CV-00275 (DAB), 2016 WL 5946709, at *10 (S.D.N.Y. Oct. 4, 2016).

592. *See* Merrill Lynch, Pierce, Fenner & Smith, Inc. v. Curran, 456 U.S. 353 (1982) (recognizing implied private right of action for violations of CEA).

593. 7 U.S.C. § 25(a)(1)(D) (2018).

594. *See, e.g.*, Stoneridge Inv. Partners LLC v. Scientific-Atlanta Inc., 552 U.S. 148, 155–56 (2008) ("[T]here is no private right of action for aiding and abetting a § 10(b) violation.").

595. *See* 7 U.S.C. § 25(a)(1) (2018) (providing private right of action under CEA for anyone who willfully aids or abets a violation of CEA or CFTC rules); CFTC v. Sidoti, 178 F.3d 1132, 1136 (11th Cir. 1999) (describing liability under CEA for aiding and abetting liability and control person liability).

596. *See* Choi v. Tower Res. Cap. LLC, 890 F.3d 60, 67 (2d Cir. 2018). *See also* Paul J. Pantano, Jr. et al., *CEA Jurisdiction Attaches When Irrevocable Foreign Futures Trades are Executed Via Globex*, WILLKIE FARR & GALLAGHER LLP: CLIENT ALERT 3 (Apr. 13, 2018), https://www.willkie.com/~/media/Files/Publications/2018/04/CEA_Jurisdiction_Attaches_When_Irrevocable_Foreign_Futures_Trades_Are_Executed_via_Globex.pdf (observing that *Choi* may encourage CFTC and exchanges to pursue spoofing in foreign futures contracts that occurs via U.S.-based trade execution systems).

597. For example, in November 2018 a putative class of investors sued JPMorgan Chase & Co. and a group of precious metals traders employed by the bank, alleging that defendants engaged in a spoofing scheme in violation of, *inter alia*, Rule 180.1. *See* Darcy Reddan, *JPMorgan Hit with Class Action Over Spoofing Allegations*, LAW360 (Nov. 8, 2018, 2:50 PM), https://www.law360.com/energy/articles/1100139/jpmorgan-hit-with-class-action-over-spoofing-allegations; Class Action Complaint at 15, Cognata v. JP Morgan Chase & Co., Case No. 1:18-cv-10356 (S.D.N.Y. Nov. 7, 2018).

598. *See, e.g.*, Braman v. CME Grp., Inc., 149 F. Supp. 3d 874, 885 (N.D. Ill. 2015) (observing that CEA does not create a private right of action for spoofing, but adding that plaintiffs instead sought to hold defendants, including CBOT and CME, liable for creating circumstances in which spoofing flourished).

599. CBOT Rulebook, Ch. 6 (Arbitration), https://www.cmegroup.com/rulebook/CBOT/ (last visited Sept. 15, 2019).

action without prejudice under the Federal Arbitration Act.[600]

In a second case, *Mendelson v. Allston Trading LLC*,[601] defendant moved to dismiss, arguing that the CEA's private right of action does not extend to alleged violations of Section 4c(a)(5)(C).[602] The argument was that whereas Section 22 provides a private right of action in connection with *manipulation*, it does not provide such a right in connection with *disruption*, and Section 4c(a)(5)(C) prohibits *disruptive* practices such as spoofing. As noted in the motion to dismiss, when Congress amended the CEA in 2010, it deliberately chose to bifurcate the CEA's prohibition on manipulative practices, which appears in Section 6, from the prohibition on disruptive practices, which appears in Section 4.[603] And Congress did not amend Section 22 to provide a private right of action in connection with claims of disruptive trading.[604] The complaint filed by plaintiff in *Mendelson* had asserted claims under Section 4c(a)(5)(C), Rule 180.1, and Rule 180.2, but according to defendant the pleading only alleged a factual basis for spoofing (disruption). There was no factual basis for alleging manipulation and defendant was impermissibly seeking to reclassify disruptive/spoofing conduct as manipulation. Accordingly, the motion argued, there was no private right of action and the matter should be dismissed.[605]

Plaintiff Mendelson voluntarily dismissed before the court could consider the substance of defendant's contention that the CEA provides no private right of action in spoofing cases. Is the contention meritorious? Probably not. In several cases courts have assumed without deciding that the CEA does provide a private right of action in cases involving alleged spoofing.[606] Moreover, defendant's argument rests on the highly dubious plank that spoofing allegations constitute only a basis for a disruption claim and not a manipulation claim as well. Spoofing is *both* disruptive and manipulative,[607] regardless of Congress's decision to bifurcate the two categories in 2010, and the same conduct can and often will result in charges or claims under multiple sections of the

600. HTG Cap. Partners, LLC v. Does, No. 15-cv-2129, 2016 WL 612861, at *9 (N.D. Ill. Feb. 16, 2016). Motions to compel arbitration in at least two other private spoofing actions were pending in mid-2019. *See* Tower Research Cap. LLC's Mot. to Compel Arbitration and to Dismiss the Third Am. Compl.; Boutchard v. Gandhi, Case No. 1:18-cv-7041 (JJT) (N.D. Ill. July 1, 2019); Mot. to Compel Arbitration, Chopper Trading LLC v. Allston Trading LLC, Case No. 19-cv-1674 (N.D. Ill. May 10, 2019). *See also* Reenat Sinay, *CME Spoofing Claims Should Not be Arbitrated, Investors Say*, LAW360 (Aug. 2, 2019, 4:10 PM), https://www.law360.com/articles/1184679/print?section=securities (reporting plaintiffs' argument in *Boutchard* that CME Rule 600.A compels arbitration only where parties are members at the time the claim is filed).

601. Mendelson v. Allston Trading LLC, No. 15-cv-04580, 2015 WL 4764365 (N.D. Ill. July 22, 2015).

602. Allston Trading LLC's Mot. to Dismiss, Mendelson v. Allston Trading LLC, No. 15-cv-04580, 2015 WL 4764365 (N.D. Ill. July 22, 2015).

603. *Id.*

604. *Id.* at *9.

605. *Id.* at *2.

606. *See, e.g.*, Choi v. Tower Res. Cap. LLC, 890 F.3d 60 (2d Cir. 2018) (vacating decision to dismiss putative class action involving alleged spoofing). *But see* Braman v. CME Grp., Inc., 149 F. Supp. 3d 874, 885 (N.D. Ill. 2015) (granting motion to dismiss second amended class action complaint and stating in dicta that the CEA does not create private right of action for spoofing).

607. *See* Robert Zwirb, *United States: Seventh Circuit Upholds First Criminal Conviction for Spoofing*, FINDKNOWDO (Aug. 21, 2017), https://www.findknowdo.com/news/08/11/2017/seventh-circuit-upholds-first-criminal-conviction-spoofing (observing that in *Coscia*, the Seventh Circuit "essentially defined 'spoofing' as a form of what is traditionally understood to mean market manipulation"); McCracken & Schleppegrell, *supra* note 38 ("The intersection of manipulation and disruptive trading . . . has always been part of the regulatory landscape.").

amended CEA. For example, in the CFTC's civil suit against Flotron, he was charged with both spoofing/disruption and manipulation (violations of Sections 4c(a)(5)(C) and 6(c)(1) and Rule 180.1).[608]

The disputed existence of a private right of action is not the only obstacle confronting private plaintiffs in spoofing and layering cases. In 2018 and 2019 plaintiffs filed at least five putative spoofing class actions in Chicago[609] and New York[610] federal district courts. These actions typically parlayed prior resolutions by the government with spoofing defendants. Three of the class actions commenced in New York in 2019 followed, by a few weeks, the agreement by defendant Merrill Lynch Commodities Inc. to pay $36.5 million to resolve spoofing allegations by the DOJ and CFTC. Merrill Lynch is the lead defendant in all three of these actions,[611] which were consolidated in September 2019.[612]

Plaintiffs in class action spoofing cases face multiple hurdles. One is the CEA's statute of limitations for private rights of action, which is two years[613] and begins to run when plaintiff has constructive or inquiry notice of defendant's conduct.[614] Both of the 2018 class action complaints were filed more than two years after the alleged spoofing occurred, and plaintiffs attempted to hurdle this barrier by alleging fraudulent concealment. According to plaintiffs, spoofing is inherently "self-concealing."[615] This is unlikely to be a winning argument because widespread acceptance might eviscerate the statute of limitations.

The two-year limitations period is a potential obstacle in all spoofing or layering cases commenced by private plaintiffs. But another hurdle—defining an ascertainable and viable class—is unique to class action plaintiffs. The complaints generally define the classes to include anyone who transacted in a particular market during a multi-year period. For example, the Illinois action commenced in 2018 defines the class as all persons and entities that purchased or sold E-mini Dow Jones futures contracts, E-mini S&P 500 futures contracts, or E-mini Nasdaq futures contracts, or any options on those

608. *See* Complaint at 1, CFTC v. Flotron, (D. Conn. Jan. 26, 2018).

609. Boutchard v. Gandhi, Case No. 18-cv-7041 (N.D. Ill. Oct. 19, 2018).

610. Alishaev v. Merrill Lynch Commodities, Inc., Case No. 1:19-cv-06488 (S.D.N.Y. July 12, 2019); Robert Charles Class A., L.P. v. Merrill Lynch Commodities, Inc., Case No. 19-cv-6172 (S.D.N.Y. July 2, 2019); Gamma Traders–I LLC v. Merrill Lynch Commodities, Inc., Case No. 1:19-cv-06002 (S.D.N.Y. June 27, 2019); Cognata v. JPMorgan Chase & Co., Case No. 18-cv-10356 (S.D.N.Y. Nov. 7, 2018).

611. *See* Rachel Graf, *Bank of America, Morgan Stanley Again Accused of Spoofing*, LAW360 (July 12, 2019, 6:48 PM), https://www.law360.com/articles/1177996/bank-of-america-morgan-stanley-again-accused-of-spoofing; Reenat Sinay, *Merrill Lynch, Morgan Stanley Hit with Spoofing Class Action*, LAW360 (June 27, 2019, 5:38 PM), https://www.law360.com/articles/1173464 (reporting filing of proposed class action against Merrill Lynch and Morgan Stanley).

612. *See* Order on Mot. to Appoint Counsel, *In re* Merrill, BofA, and Morgan Stanley Spoofing Litigation, Case No. 19-cv-6002 (S.D.N.Y. Sept. 13, 2019); Rachel Graf, *Lowey Dannenberg, Scott & Scott to Lead Spoofing Suit*, LAW360 (Sept. 13, 2019, 7:36 PM), https://www.law360.com/securities/articles/1198972/lowey-dannenberg-scott-scott-to-lead-spoofing-suit?nl_pk=8b240a19-db95-4ea6-91e0-b797c8600de2&utm_source=newsletter&utm_medium=email&utm_campaign=securities (reporting consolidation of spoofing class actions).

613. 7 U.S.C. § 25 (2018).

614. Dyer v. Merrill Lynch, Pierce, Fenner & Smith, Inc., 928 F.2d 238, 240 (7th Cir. 1991).

615. *See, e.g.*, Complaint at 15, Boutchard v. Gandhi, Case No. 18-cv-7041 (N.D. Ill. Oct. 19, 2018) ("By its very nature, the unlawful activity alleged herein was self-concealing.").

contracts, during the period March 2012 to October 2014.[616] But that definition likely is substantially overbroad. Because the price impact of spoofing is fleeting, plaintiffs' proposed class probably sweeps in many market participants who were not adversely affected by the spoof.[617]

XIV. CONCLUSION

Spoofing and layering pose major threats to the integrity and stability of both futures and equities markets and arguments to the contrary are unpersuasive. The CFTC, SEC, and DOJ have recognized these threats and have begun to more aggressively prosecute cases involving such trading behavior. To a much lesser extent, SROs in the futures and equities markets also have begun to tackle this behavior. The ramped-up regulatory and criminal enforcement approach to spoofing and layering has raised a number of novel issues addressed herein. Suggested resolution of those issues includes the following. First, to the extent possible, the CFTC, SEC, and SROs should harmonize their approaches to anti-spoofing and layering enforcement, especially with regard to scienter. Second, courts should join the growing consensus that cryptocurrency is a commodity subject to regulation by the CFTC and the CEA's anti-spoofing provision is not unconstitutionally vague. Third, courts also should recognize that spoofing and layering can be prosecuted under the federal wire fraud statute.

Fourth, regulators should aggressively pursue enforcement actions for failure to supervise and/or for vicarious liability in connection with spoofing and layering, and courts should extend the prohibition on spoofing to non-traders. Fifth, the CAT should be extended to include futures and Regulation A-T should be implemented. Sixth, SROs cannot be counted on to effectively police spoofing and layering. Fruitful enforcement requires additional resources for the CFTC, but that requirement appears unlikely to be met. In the absence of these resources, the CFTC should modify its cooperation and self-reporting program to provide additional incentives that would encourage expanded use of the program. Similarly, the CFTC should work to streamline its whistleblower program, with the objective of encouraging expanded use of the program. Seventh, courts should unambiguously recognize a private right of action for spoofing and layering claims. Adoption of the foregoing recommendations can help reduce the major threat currently presented by spoofing and layering to futures and equities markets in the United States.

616. Complaint at 13, Boutchard v. Gandhi, Case No. 18-cv-7041 (N.D. Ill. Oct. 19, 2018).

617. Laura Brookover, *Spoofing Charges Don't Readily Translate to Private Actions*, LAW360 (Nov. 16, 2018, 3:01 PM), https://www.law360.com/articles/1101401/spoofing-charges-don-t-readily-translate-to-private-actions.