UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

IN RE: CHICAGO BOARD OPTIONS EXCHANGE VOLATILITY INDEX MANIPULATION ANTITRUST LITIGATION	No. 18 CV 4171 Judge Manish S. Shah

MEMORANDUM OPINION AND ORDER

The Chicago Board Options Exchange created the Volatility Index to measure stock market volatility. It also created VIX-related products, including futures and options, that allow investors to trade on their predictions of the market's volatility. Plaintiffs bought and sold VIX-related products on Cboe's exchanges and now argue that Cboe designed the VIX enterprise in a way that allowed anonymous traders to manipulate the market for their own benefit. Cboe knew about this manipulation of its most profitable venture, plaintiffs assert, and chose not to stop it, prioritizing its own profits over its duty to maintain a fair market. Plaintiffs allege that they lost money as a result and bring Securities Exchange Act and Commodities Exchange Act claims against Cboe, as well as a negligence claim. Plaintiffs bring similar claims against unknown Doe Defendants and allege that the Does violated the Sherman Act through their manipulative trading. Cboe moves to dismiss all claims plaintiffs bring against it, and for the reasons discussed below, the motion is granted.

I. Legal Standards

A complaint must describe the claim in sufficient factual detail to give the defendant fair notice of the claim and the grounds on which it rests. *Dura Pharmaceuticals, Inc. v. Broudo*, 544 U.S. 336, 346 (2005). It must also "contain sufficient factual matter, accepted as true, to 'state a claim to relief that is plausible on its face.'" *Ashcroft v. Iqbal*, 556 U.S. 662, 672 (2009) (quoting *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007)). When a plaintiff alleges fraud, heightened pleadings requirements apply, and the plaintiff "must state with particularity the circumstances constituting fraud or mistake." Fed. R. Civ. P. 9(b). This requires "describing the 'who, what, when, where, and how' of the fraud." *Anchor Bank, FSB v. Hofer*, 649 F.3d 610, 615 (7th Cir. 2011) (quoting *Pirelli Armstrong Tire Corp. Retiree Medical Benefits Trust v. Walgreen Co.*, 631 F.3d 436, 441–42 (7th Cir. 2011)). Ordinarily, "[m]alice, intent, knowledge, and other conditions of a person's mind may be alleged generally," Fed. R. Civ. P. 9(b), but the Private Securities Litigation Reform Act requires that securities-fraud complaints "state with particularity facts giving rise to a strong inference that the defendant acted with the required state of mind." 15 U.S.C. § 78u–4(b)(2)(A); *Cornielsen v. Infinium Capital Mgmt., LLC*, 916 F.3d 589, 598 (7th Cir. 2019).

II. Background

Plaintiffs are individuals and companies who bought or sold various products related to Cboe's[1] proprietary VIX, which measures market volatility. [140] ¶¶ 15–25.[2] They allege that Cboe designed the index with features that made it susceptible to manipulation, that the Doe Defendants exploited those features to consistently manipulate the market, that Cboe knew about it and chose not to act (in violation of its own internal rules), and that plaintiffs lost money as a result.

A. An Overview of the VIX

Defendant Cboe Global Markets, Inc. was a publicly traded holding company of, among other entities, defendants Cboe Futures Exchange, LLC and Cboe Exchange, Inc. *Id.* ¶ 26. The S&P 500 index, known as the SPX, was a weighted index of 500 U.S. stocks from different industries and widely regarded as the leading benchmark of the overall U.S. stock market. *Id.* ¶¶ 42–43. Cboe was the exclusive provider of options on the SPX, offering a range of SPX Options, including those with morning and afternoon settlements, weekly options, end-of-month options, and mini SPX options. *Id.* ¶¶ 43–44. An option contract gives the buyer the right—but not the obligation—either to buy (a call option) or sell (a put option) a commodity or financial instrument at some specified time, at an agreed price–the strike price. *Id.* ¶ 35. A contract that involves a promise to buy or sell at a certain price on a fixed date is a

---

[1] Throughout the complaint plaintiffs refer to Cboe generally, without specifying which Cboe entity acted.

[2] Bracketed numbers refer to entries on the district court docket. Referenced page numbers are taken from the CM/ECF header placed at the top of filings. Plaintiffs' joint amended complaint is [140].

futures contract. *Id.* ¶ 40. Whether the owner of an option exercises it usually turns on whether the option is in the money or out of the money. *Id.* ¶ 37. An option is in the money if the owner would be entitled to payment if she chose to exercise it; an out-of-the-money option is one where the owner would not get a payment if exercised. *Id.* ¶¶ 37–38. A substantial portion of Cboe's trading volume and transaction fees came from SPX Options. *Id.* ¶ 44.

Cboe created its own index (called the VIX), to measure the expected volatility of the S&P 500. *Id.* ¶¶ 1–2. The VIX Index was meant to provide an instantaneous measure of how much the market thought the S&P 500 would fluctuate over 30 days. *Id.* ¶ 49. The VIX was determined by referencing the prices of SPX Options because the prevailing quotation levels of SPX Options indicated the market's expectations of future stock price volatility. *Id.* ¶ 48. Initially, the VIX was only a benchmark figure; there was no way for investors to take a position in it. *Id.* ¶ 54. But in 2004, Cboe created VIX Futures, and two years later it created VIX Options, to allow participants to make investments based on market volatility. *Id.* The VIX quickly became Cboe's most profitable venture, and today it is widely known as the U.S. stock market's "fear gauge." *Id.* ¶¶ 1, 54.

Because the VIX was a financial index, not a physical good, all VIX Options and Futures were cash-settled. *Id.* ¶ 5. When VIX Options or Futures expired, Cboe made a series of calculations to determine who owed whom money and how much. *Id.* Cboe calculated the VIX using only standard SPX Options (which expired on the third Friday of each month) and weekly SPX Options (which expired on all other Fridays) that Cboe listed for trading. *Id.* ¶ 49. Only SPX Options with more than 23 days and fewer than 37 days to expiration were used in the calculation. *Id.* Those options were then weighted to yield a constant, 30-day measure of expected volatility of the S&P 500 Index. *Id.*

The VIX was calculated every 15 seconds throughout the trading day and was based on bid and ask premiums at various strike prices for different SPX Options. *Id.* ¶ 51. To determine which SPX Options to use, the calculation process began with the strike price closest to the prevailing at-the-money value and moved in both out-of-the-money directions until it reached two zero-bid strike prices. *Id.* The two-zero bid rule ensured that the SPX put and call options used to determine the value of the VIX were drawn from those for which there had not been two or more zero bids in a row, as illustrated below:

Application of the Two-Zero Bid Rule

Put Strike	Bid Premium	Ask Premium	Included in VIX calculation?
1380	0.1	0.2	Yes
1375	0.1	0.15	Yes
1370	0.05	0.35	Yes
1365	0	0.35	No
1360	0	0.35	No
1355	0.05	0.35	Excluded following two zero bids
1350	0.05	0.15	
1345	0	0.15	

Call Strike	Bid Premium	Ask Premium	Included in VIX calculation?
2100	0.05	0.15	Yes
2120	0	0.15	No
2125	0.05	0.15	Yes
2150	0	0.1	No
2175	0	0.05	No
2200	0.05	0.05	Excluded following two zero bids
2225	0.05	0.1	
2250	0	0.05	

Id. ¶¶ 51–53. Before 2003, the VIX was calculated based on a small range of strike prices for puts and calls of options on the S&P 100, clustered around an at-the-money price. *Id.* ¶ 54 n. 12.

Investors could only exercise VIX Options at expiration, which since mid-2005 occurred every Wednesday (before 2005 expirations were monthly). *Id.* ¶ 55. VIX Futures were also cash-settled at expiry, through the same process—the SOQ process—as VIX Options. *Id.* That process was similar, but not identical, to the process used to calculate the VIX itself. *Id.* Cboe conducted the SOQ settlement process using a Hybrid Opening System, which found a single clearing price that maximized the number of contracts that could be traded within the SOQ price range. *Id.* ¶ 56. Before September 2007, Cboe employed an Order Book Official who worked with market makers through the SOQ process. *Id.* ¶ 57. As Cboe prepared to take itself public, it shifted toward automation and removed that position. *Id.* Cboe officials received warnings that this would expose the SOQ process to the risk that unreasonable orders that did not reflect prevailing market conditions would influence the calculation. *Id.*

A lot of control over the bidding and trading process for SPX Options was vested in Cboe-appointed Lead Market Makers. *Id.* ¶ 58. Cboe required Lead Market Makers to "provide continuous electronic quotes" in certain situations. *Id.* ¶ 58. All market makers could participate in the SOQ, but Lead Market Makers were obligated to enter opening quotes for SPX Options if no one else did. *Id.* ¶ 60. Cboe initially designated two Lead Market Makers for SPX Options, and by 2014 it designated three Lead Market Makers for both SPX Options and VIX Options. *Id.* ¶ 59. Cboe kept the identities of these Lead Market Makers confidential. *Id.* ¶ 61. Lead Market Makers (and Designated Primary Market Makers for weekly SPX Options) could participate in the SOQ with both orders and non-binding quotes; all other market participants could participate only through orders, which are binding offers. *Id.* ¶¶ 61–62. Certain market makers were given steep discounts for quoting out-of-the-money SPX Options. *Id.* ¶ 60 n. 14. When there was no opening trade for SPX Options during the settlement window for VIX Options and Futures, and thus no price to incorporate, the opening price was the average of an SPX Option's bid and ask price determined at the open at 8:30 a.m. *Id.* ¶ 63. Cboe then executed the SPX Options orders at market-clearing prices and removed remaining unexecuted orders. *Id.* The auction clearing prices for SPX Options expiring in exactly 30 days were then used as part of the calculations to settle VIX Options and VIX Futures expiring that calculation day. *Id.* Shortly after Cboe created VIX Options, it also created a new set of products which allowed investors to buy shares (ETFs) and notes (ETNs), the value of which was directly linked to the value of the VIX or related products. *Id.* ¶ 64. They traded on a national securities exchange like a security. *Id.*

Cboe long promoted VIX Options and Futures as effective investments. *Id.* ¶¶ 66, 68. Cboe's website encouraged investors to use VIX Options and Futures to "seek diversification, hedge or capitalize on volatility or efficiently generate income." *Id.* ¶¶ 66–67. It advertised the VIX as "a leading measure of market expectations of near-term volatility" and stressed that the "addition of weekly expirations … offers volatility exposures that more precisely track the performance of the VIX Index." *Id.* ¶ 69. In 2007, Cboe launched a branding campaign to "communicat[e] to the world that CBOE is a vital necessity in the options marketplace for which there is no substitute." *Id.* ¶ 71. In 2012, Cboe advertised that VIX Options provided investors "targeted trading strategies around market news and events." *Id.*

B. Vulnerability to manipulation

Some people have criticized the settlement process for the VIX Options and Futures as being ripe for manipulation. *Id.* ¶ 74. Plaintiffs allege that the Doe Defendants took advantage of this vulnerability and routinely manipulated the cash-settlement values for VIX Options and Futures. *Id.* ¶ 73. Certain features of the settlement process made it especially susceptible to manipulation. *Id.* ¶ 74. For example, the settlement process depended on the value of thinly traded, illiquid financial instruments—out-of-the-money SPX Options—which traded in far lower volumes than VIX Options and Futures. *Id.* ¶ 76. This allowed Does to make a small number of out-of-the-money SPX Options trades and have a disproportionate impact on the settlement values of the VIX Options and Futures. *Id.* ¶ 77. Though it took place in the morning, this strategy is similar to what's commonly referred to as "banging the close." *Id.* The ability to manipulate the market was amplified by the fact that manipulators only needed to move the market for a very short period to have an effect. *Id.* ¶ 78. Cboe began publishing information at 7:30 a.m. and required all strategy orders for SPX Options to be made within fifty minutes, meaning the manipulators only needed to move the market shortly before 8:20 a.m. to have an effect. *Id.* The infrequency of VIX settlements further exacerbated the problem. *Id.* Had Cboe made the SOQ settlement window longer, during normal market hours, or more frequent, it would have been more difficult for manipulators to affect the market. *Id.*

Similarly, manipulators were able to exploit the two-zero bid rule by spreading bids out across strike prices to ensure there were never two or more consecutive zero-bid puts ahead of any strike prices the manipulators wanted the SOQ process to include. *Id.* ¶ 82. Cboe's formula further magnified the effect of the manipulation. *Id.* ¶¶ 84–87. In May 2017, two professors published a research paper, detailing patterns that were consistent with manipulation. *Id.* ¶ 88.

C. Cboe's Rules

As a board of trade, Cboe was required to establish rules to prevent abusive trade practices. *Id.* ¶ 143. Cboe's Rule 8.7 required market makers to "contribute to the maintenance of a fair and orderly market" and not "enter into transactions or make bids or offers that are inconsistent with such a course of dealings." *Id.* ¶ 144. Cboe also required that trading-permit holders not

> effect or induce the purchase, sale or exercise of any security for the purpose of creating or inducing a false, misleading, or artificial appearance of activity … or for the purpose of unduly or improperly influencing the market price of such security … or for the purpose of making a price which does not reflect the true state of the market.

Id. Cboe's Rule 601 further prohibited manipulation by providing,

> [n]either a Trading Privilege Holder nor any of its Related Parties shall engage or attempt to engage in any fraudulent act or engage or attempt to engage in any scheme to defraud, deceive or trick, in connection with or related to any trade on or other activity related to the Exchange or Clearing Corporation.

Id. And Rule 603 stated,

> [a]ny manipulation of the market in any Contract is prohibited. Orders entered into the CFE System for the purpose of generating unnecessary volatility or creating a condition in which prices do not or will not reflect fair market values are prohibited and any Trading Privilege Holder (including its respective Related Parties) who makes or assists in entering any such Order with knowledge of the purpose thereof or who, with such knowledge, in any way assists in carrying out any plan or scheme for the entering of any such Order, shall be deemed to have engaged in an act detrimental to the Exchange.

Id. These rules signaled to investors that the VIX was safe and show, plaintiffs allege, that Cboe must have known about, or recklessly disregarded, the Doe Defendants' manipulation.

III. Analysis

Cboe moves to dismiss all of plaintiffs' claims against it. Cboe argues plaintiffs' Securities Exchange Act claim is precluded, that Cboe's status as a self-regulatory organization entitles it to immunity, and that plaintiffs have otherwise failed to allege the requisite elements of a claim, including loss causation and scienter. Cboe argues plaintiffs' Commodities Exchange Act claim fails because it is too general and because plaintiffs have failed to plausibly allege actual damages and bad faith. For similar reasons, Cboe asserts, plaintiffs have failed to plead a claim for secondary Commodities Act liability. Finally, Cboe argues plaintiffs' negligence claim is preempted or otherwise inadequate.[3]

A. Standing

Plaintiffs have alleged Article III standing. To have standing, a plaintiff must have (1) suffered an injury in fact that is concrete and particularized and actual or

[3] Cboe also argues that the Does' manipulation is insufficiently alleged, but I do not reach that argument.

imminent, (2) fairly traceable to the challenged action of the defendant, and (3) likely to be redressed by a favorable decision. *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560–61 (1992). Plaintiffs have alleged that Cboe and the Does manipulated the VIX, causing plaintiffs—who purchased and sold VIX-related products—to lose money. Damages would remedy that injury, and at this stage, this is enough. *See RK Co. v. See*, 622 F.3d 846, 851 (7th Cir. 2010). Plaintiffs have standing to pursue their claims.

B. Securities Exchange Act

Plaintiffs allege Cboe Exchange, Inc. and Cboe Global[4] manipulated the VIX marketplace in violation of the Securities Exchange Act by designing a settlement process that was susceptible to manipulation and by failing to prevent Doe Defendants from taking advantage of those vulnerabilities. Section 10(b) of the Securities Exchange Act forbids: (1) the "use or employ[ment] … of any … manipulative or deceptive device," (2) "in connection with the purchase or sale of any security," and (3) "in contravention of" SEC "rules and regulations." 15 U.S.C. § 78j(b). Rule 10b–5 makes it unlawful for any person to: (a) "employ any device, scheme, or artifice to defraud," and (c) "engage in any act … which operates or would operate as a fraud or deceit upon any person, in connection with the purchase or sale of any security." 17 C.F.R. § 240.10b–5 (2004). To state a claim for market manipulation, plaintiffs must allege (1) manipulative acts, (2) damage, (3) caused by reliance on an

[4] Plaintiffs do not bring a Securities Exchange Act claim against Cboe Futures, *see* [192] at 28 n. 16, and do not allege Cboe Futures took any action "in connection with the purchase or sale of any security." *See* 15 U.S.C. § 78j(b). There is no aider and abettor liability under the Securities Exchange Act. *Central Bank of Denver, N.A. v. First Interstate Bank of Denver, N.A.*, 511 U.S. 164 (1994).

assumption of an efficient market free of manipulation, (4) scienter, (5) in connection with the purchase or sale of securities, (6) using the mail or any national securities exchange facility. *ATSI Commc'ns, Inc. v. Shaar Fund, Ltd.*, 493 F.3d 87, 101 (2d Cir. 2007).

1. Immunity

Self-regulatory organizations—such as Cboe Exchange, *see* 15 U.S.C. § 78c(a)(26)—and their officers are entitled to absolute immunity from private suits "when they perform their statutorily delegated adjudicatory, regulatory, and prosecutorial functions." *Weissman v. Nat'l Ass'n of Secs. Dealers, Inc.*, 500 F.3d 1293, 1296 (11th Cir. 2007). Absolute immunity allows public officials who are entrusted with sensitive tasks to carry out their responsibilities without the concern of a future damages suit. *In re NYSE Specialists Securities Litigation*, 503 F.3d 89, 95 (2d Cir. 2007). Because self-regulatory organizations perform "a variety of regulatory functions that would, in other circumstances, be performed by a government agency," and for which the government would enjoy immunity, courts extended absolute immunity to self-regulatory organizations when performing regulatory tasks. *Barbara v. N.Y. Stock Exch., Inc.*, 99 F.3d 49, 59 (2d Cir. 1996).

But exchanges are also private entities that engage in non-governmental activities to serve their private business interests. *Weissman*, 500 F.3d at 1296 (citing SEC Release No. 34–50700, *Concept Release Concerning Self-Regulation*, 69 Fed. Reg. 71,256, 71,261–262 (Dec. 8, 2004) (noting that self-regulatory organizations face growing business pressure that "can create a strong conflict between [their] regulatory and market operations functions")). Because self-regulatory organizations are only immune for performing delegated functions, courts must determine whether immunity applies on a case-by-case basis. *In re NYSE*, 503 F.3d at 96. The doctrine "is of a rare and exceptional character," and the party seeking immunity bears the burden of demonstrating it is warranted. *Id.* (quoting *Barrett v. United States*, 798 F.2d 565, 571 (2d Cir. 1986)). When deciding whether a self-regulatory organization is entitled to immunity, courts apply a functional test, considering "the nature of the function performed, not the identity of the actor who performed it." *See In re NYSE*, 503 F.3d at 96 (quoting *Forrester v. White*, 484 U.S. 219, 229 (1988) (holding that a state court judge did not have § 1983 immunity for his decision to demote and dismiss a probation officer)). Neither motive, nor reasonableness, is considered. *See In re NYSE*, 503 F.3d at 95–96.

As a self-regulatory organization, Cboe is immune from suit where the alleged misconduct concerns instituting disciplinary proceedings, enforcing rules and regulations and general oversight over members, interpreting securities laws and regulations, and referring exchange members to the SEC or other government agencies. *See Standard Inv. Chartered, Inc. v. Nat'l Ass'n of Securities Dealers, Inc.*, 637 F.3d 112, 116 (2d Cir. 2011). Because this conduct is immune, plaintiffs cannot base their claim on Cboe's failure to enforce rules prohibiting manipulation or decisions not to discipline those who manipulated the market. Cboe argues that plaintiffs' claim inevitably stems from these regulatory actions. But at this stage, I draw all inferences in plaintiffs' favor and frame their claim—to the extent possible—

as one based on Cboe's non-immune acts. When it designed the SOQ settlement process, created and promoted the VIX-related products, and listed those products on the exchange, Cboe acted in its private capacity. The SEC would not create, advertise, or make available proprietary products if Cboe did not exist, so Cboe is not entitled to immunity for doing so. *See Opulent Fund v. NASDAQ Stock Mkt., Inc.*¸ 2007 WL 3010573, at *5 (N.D. Cal. Oct. 12, 2007). Cboe did not create and administer the VIX-related products because of any statutorily delegated duty. It sought to further its private interests of attracting investors and increasing trading to generate fees. *See id*. at *5 (holding Nasdaq was not immune from claims alleging it miscalculated the Nasdaq-100 price because it chose to create that market and disseminate that information); *Weissman*, 500 F.3d at 1299 (holding an exchange's advertisements promoting a certain stock are not entitled to immunity); *In re Facebook, Inc. IPO Securities and Derivative Litigation*, 986 F.Supp.2d 428, 455–47 (S.D.N.Y. 2013) (holding that an exchange is not immune for statements made touting its technology and trading platforms because they did not relate to its delegated responsibilities).

And though the SEC approved some of Cboe's actions, which shows that the SEC acted in its capacity to regulate Cboe, it does not follow that Cboe's conduct was regulatory. Whether Cboe's non-immune conduct gives rise to a Securities Act claim is a separate question, but dismissal is not warranted solely on immunity grounds. There may be a statute of repose defense to aspects of plaintiffs' claim; for example, the design of the VIX occurred more than five years before this lawsuit. *See* 28 U.S.C. § 1658(b). But plaintiffs allege ongoing conduct, some of which continued well past the deadline. Plaintiffs "need not anticipate and attempt to plead around defenses." *United States v. N. Trust Co.*, 372 F.3d 886, 888 (7th Cir. 2004). Because it is not clear from the complaint that plaintiffs' claim is barred by the statute of repose, dismissal at this stage based on the statute of repose is unwarranted.

2. Preclusion

Cboe argues that the Securities Exchange Act precludes plaintiffs' claim because the SEC approved many aspects of the VIX enterprise, including the opening auction procedures, the listing of VIX options, the SOQ settlement process and accompanying rules, the shift from an order book official to an automated trading platform, and the transition to weekly listings of VIX Options. *See* SEC Release No. 34-49798 (June 3, 2004); SEC Release No. 34-49563 (Apr. 14, 2004); SEC Release No. 34-49698 (May 13, 2004); SEC Release No. 34-52367 (Aug. 31, 2005); SEC Release No. 34-55874 (June 7, 2007); and SEC Release No. 34-75501 (July 21, 2015). Regulatory approval of an action does not automatically preclude a private right of action; it depends on what Congress, when passing the relevant statute, intended. *See, e.g., S. Austin Coalition Cmty. Council v. SBC Commc'ns, Inc.*, 274 F.3d 1168, 1170 (7th Cir. 2001) (noting that Congress granted only certain regulators the authority to immunize a merger from an antitrust lawsuit and concluding that because the FCC and DOJ were not among those with that authority, their approval did not foreclose plaintiff's claims). In determining congressional intent as to preclusion, traditional rules of statutory interpretation apply. *POM Wonderful, LLC v. Coca-Cola Co.*, 573 U.S. 102, 112 (2014).

In arguing that the SEC's approval of its conduct precludes plaintiffs' claims, Cboe relies on antitrust cases, in which the Court has recognized that the SEC's approval of certain acts may preclude a plaintiff's antitrust claim where there is a "plain repugnancy between the antitrust and regulatory provisions." *Credit Suisse Securities (USA) LLC v. Billing*, 551 U.S. 264, 272 (2007). But it would be odd to apply this preclusion principle within a single statutory scheme. Cboe points to no cases where a court has found preclusion under similar circumstances, where one provision precludes another from the same regulatory regime.[5]

Even assuming preclusion can be found under such circumstances, the two provisions, as applicable here, are not clearly repugnant. Though it involved two separate statutes, the Court's reasoning in *POM Wonderful* is instructive. There, the Court held that the Food, Drug, and Cosmetic Act does not preclude a private party from bringing a Lanham Act claim challenging a food label as misleading. *POM Wonderful*, 573 U.S. at 115. The Court reasoned, "[w]hen two statutes complement each other, it would show disregard for the congressional design to hold that Congress nonetheless intended one federal statute to preclude the operation of the other." *Id*. Though Congress intended for the SEC to oversee and approve an exchange's proposed rule changes, *see* 15 U.S.C. § 78s(b)(1), it also implied a private right of

[5] In *City of Providence*, the Second Circuit did not reach this issue, but noted, "when a plaintiff challenges actions of [a self-regulatory organization] that are in accordance with rules approved by the SEC, the challenge may be precluded because it would conflict with 'Congress's intent that the SEC, with its expertise in the operation of the securities markets, make the rules regulating those markets.'" *City of Providence, Rhode Island v. Bats Global Mkts., Inc.*, 878 F.3d 36, 50 n. 5 (2d Cir. 2017) (quoting *Lanier v. Bats Exch., Inc.*, 838 F.3d 139, 155 (2d Cir. 2016)). For the reasons discussed, in these circumstances, no such conflict arises.

action, recognizing that manipulation may occur despite the rules designed to prevent it and allowing private individuals who are harmed by manipulation to bring lawsuits to recover their losses. Like the FDCA (which gives the government nearly exclusive enforcement authority) and the Lanham Act (which relies on injured competitors to file lawsuits), the private right of action and SEC oversight offer different mechanisms to further same broad goal: preventing manipulation. Those two different mechanisms complement each other, and so preclusion is not warranted.

Where, as here, plaintiffs allege that the exchange participated in the manipulation, the SEC may not have foreseen that risk when approving the exchange's rules, and so allowing a private suit to go forward does not undermine the agency's decision. *See POM Wonderful*, 573 U.S. at 115 ("The FDA, however, does not have the same perspective or expertise in assessing market dynamics that day-to-day competitors possess."). Allowing plaintiffs to pursue a manipulation claim against Cboe—as they could against any other manipulator, despite the SEC's determination that the VIX enterprise contained adequate safeguards—does not frustrate Congress's intent that the SEC regulate these markets. It allows for the SEC to establish procedures up front to prevent future manipulation and provides recourse for individuals who are harmed when manipulation occurs despite the SEC-approved safeguards.

3. Loss Causation

A private plaintiff bringing a claim for securities fraud must prove that the defendant's fraud caused an economic loss. 15 U.S.C. § 78u–4(b)(4). Allegations that a plaintiff purchased a security at an inflated price, alone, are insufficient to state a misrepresentation claim under the Act. *Dura Pharm. v. Bruodo*, 544 U.S. 336, 346–47 (2005). Inflated prices do not harm buyers unless there is a subsequent price drop, so trading at an inflated price does not necessarily result in a loss. *Id.* at 342–46.

Plaintiffs bring a manipulation, not misrepresentation, claim. But the same principle applies, and they must identify both sides of a transaction to show that they suffered a loss. Given the nature of a manipulation claim, plaintiffs are less likely to have access to certain facts necessary to plausibly state a claim, leading some courts to relax pleadings standards. *See ATSI*, 493 F.3d at 102 ("A claim of manipulation, however, can involve facts solely within the defendant's knowledge; therefore, at the early stages of litigation, the plaintiff need not plead manipulation to the same degree of specificity as a plain misrepresentation claim."); *Sharette v. Credit Suisse Intern.*, 127 F.Supp.3d 60, 78 & 103 (S.D.N.Y. 2015). But plaintiffs have access to information about their own trades. They should be able to identify transactions where they lost money, and so in this context, relaxing the pleading standard is not necessary.

And though plaintiffs allege ongoing manipulation, they do not assert that the manipulation caused constant inflation or suppression; rather, they allege the manipulation varied in direction depending on what was most advantageous to Does at a given time. So even if the manipulation was constant, based on the timing of a given plaintiff's trades, she may not have suffered a loss. To plead loss causation, plaintiffs must identify specific transactions where they lost money, either because they experienced a net loss or because they made less than they would have absent manipulation. The named plaintiffs' declarations list, for each of their transactions: the security, whether they bought or sold, the date, the quantity, and the price. *See* [141]–[149], [168]–[169]. But they do not identify specific transactions that resulted in a loss from the manipulation, and so, they have not plausibly alleged loss causation. And to the extent any plaintiff class members did not hold their options through settlement, their loss is even less directly linked to the SOQ manipulation, and plaintiffs have not alleged loss causation as required to state a claim.

4. Reliance

Cboe argues plaintiffs failed to allege reliance (also known as transaction causation). The Supreme Court has established a rebuttable presumption of reliance in two situations. The first, established in *Affiliated Ute Citizens of Utah v. United States*, 406 U.S. 128 (1972), provides that "if there is an omission of a material fact by one with a duty to disclose, the investor to whom the duty was owed need not provide specific proof of reliance." *Stoneridge Inv. Ptnrs., LLC v. Scientific-Atlanta, Inc.*, 552 U.S. 148, 159 (2008). The second, the fraud-on-the-market doctrine, applies to statements that become public. *Id*. Because public information is reflected in the price of a security, one can assume that the investor who bought or sold at the market price relied on the statement. *Id*. The Court has never addressed whether either of these presumptions applies to manipulation claims. *See CP Stone Fort Holdings, LLC v. Does*, No. 16 C 4991, 2017 WL 1093166, at *5 (N.D. Ill. Mar. 22, 2017).

Because the manipulation was communicated to the public, in the sense that it was incorporated into the pricing of the securities plaintiffs bought and sold, the principle behind the fraud-on-the-market presumption warrants a presumption of reliance here. *See Fezzani v. Bear, Stearns & Co. Inc.*, 716 F.3d 18, 21 n. 2 (2d Cir. 2013) ("There may thus be some merit to a modified presumption of reliance in market manipulation cases because reliance by investors on a misrepresentation of a price as being set by an active, arms-length market may be presumed."); *ATSI*, 493 F.3d at 101 (listing "reliance on an assumption of an efficient market free of manipulation" as an element of a market-manipulation claim); *Ploss v. Kraft Foods Group., Inc.*, 197 F.Supp.3d 1037, 1059 n. 11 (N.D. Ill. 2016) (noting that "reliance on a direct misrepresentation is not necessary. … [T]hat the market relies on the transactions to signal true, rather than manipulative demand—is all that is necessary" to plead reliance for a Commodities Exchange Act claim). Applying this presumption, plaintiffs have alleged reliance.

5. Scienter

The Private Securities Litigation Reform Act requires that a plaintiff plead with particularity facts giving rise to a "strong inference that the defendant acted with the required state of mind." 15 U.S.C. § 78u–4(b)(2). This requires that the inference of scienter be "more than merely plausible or reasonable—it must be cogent and at least as compelling as any opposing inference of nonfraudulent intent." *Tellabs, Inc. v. Makor Issues & Rights, Ltd.*, 551 U.S. 308, 314 (2007) ("*Tellabs I*"). The critical question, then, is whether it is more likely that Cboe either intended to deceive, manipulate, or defraud investors when it designed the VIX-related products, promoted them, and listed them on its exchange (its non-immune conduct), or whether Cboe was merely careless in failing to respond appropriately. *See Pension Trust Fund for Operating Engineers v. Kohl's Corp.*, 895 F.3d 933, 939 (7th Cir. 2018).

Cboe first argues plaintiffs have failed to identify who, within Cboe, acted with the requisite intent. Though it is not enough to refer "generally to the collective knowledge" of a corporation's employees, "it is possible to draw a strong inference of corporate scienter without being able to name the individuals who concocted and disseminated the fraud." *Makor Issues & Rights, Ltd. v. Tellabs Inc.*, 513 F.3d 702, 708–10 (7th Cir. 2008) ("*Tellabs II*"). Plaintiffs allege that the VIX was uniquely important to Cboe's success. Assuming manipulation was constantly occurring in Cboe's most lucrative market, as plaintiffs allege, it can be inferred that someone in Cboe's management knew about the manipulation and authorized the continued offering and advertising of the VIX. This is more than a general reference to Cboe's collective knowledge.

A plaintiff can plead a strong inference of scienter by alleging facts showing either: (1) a motive and opportunity to commit fraud or (2) strong circumstantial evidence of conscious misbehavior or recklessness. *ATSI*, 493 F.3d at 99. Recklessness is "an extreme departure from the standards of ordinary care … to the extent the danger was either known to the defendant or so obvious that the defendant must have been aware of it." *Tellabs II*, 513 F.3d at 710 (quoting *In re Scholastic Corp. Secs. Litigation*, 525 F.3d 63, 76 (2d Cir. 2007)).

Cboe does not dispute that it had the opportunity to commit the manipulation alleged. To allege motive, a plaintiff must assert that the defendant "benefitted in some concrete and personal way from the purported fraud." *Novak v. Kasaks*, 216 F.3d 300, 307–08 (2d Cir. 2000). A generalized motive common to all corporate executives, such as the motive to pretend nothing is wrong to avoid a loss, does not create a strong inference of scienter. *Kohl's Corp.*, 895 F.3d at 939–40. Plaintiffs acknowledge this principle but argue that the "extreme importance of the VIX franchise to Cboe" went beyond a generalized profit motive. [192] at 36. I disagree. Though the VIX franchise was especially lucrative to Cboe, Cboe did not enjoy any additional benefit from the manipulation itself. It merely earned the same trading fees it would have for any legitimate transaction. *Compare Sharette*, 127 F.Supp.3d at 94–95 (noting defendants' incentive to strengthen relationships with hedge funds, whose business was much more lucrative than other investors, evidenced motive), *with Kohl's Corp.*, 895 F.3d at 939–40 (concluding that executives' motive to overlook misclassifications on a balance sheet and pretend nothing was amiss was a motive common to all executives and insufficient to raise a strong inference of scienter).[6] Though the VIX franchise was an important source of profit for Cboe, the manipulation itself was not. Plaintiffs have not alleged that Cboe benefitted in any additional way by attracting the business of market makers. Instead, plaintiffs allege generalized profit motivations, which are not enough to establish a strong inference of scienter.

[6] Plaintiffs also cite *Anschutz Corp. v. Merrill Lynch & Co. Inc.*, 785 F.Supp.2d 799 (N.D. Cal. 2011). But there, the plaintiff alleged that the scheme not only allowed the defendant bank to earn underwriting fees but also provided insurance against losses to its portfolio and could not be explained by legitimate investment aims. *Id.* at 817.

As circumstantial evidence of Cboe's scienter, plaintiffs assert that Cboe had full access to relevant trading data and that it reviewed that data—as it was obligated to do—for signs of manipulation. Because the VIX was so central to Cboe's success, and because even public data showed signs of manipulation, the most compelling inference, plaintiffs assert, is that Cboe was aware that the VIX was being manipulated. Plaintiffs also allege that the SEC has previously fined Cboe for prioritizing its business interests over its regulatory interests by allowing short selling to occur and argue this makes it more likely Cboe acted with scienter here. [140] ¶¶ 161–64. Finally, plaintiffs argue that Cboe's design of the SOQ calculation process (including the use of out-of-the-money SPX Options, the two-zero bid rule, and restricted access to anonymous participants), along with its removal of the Order Book Official and granting of special privileges to select market participants, make it in increasingly likely that Cboe knew about the manipulation.

Taking these allegations together and in the light most favorable to plaintiffs, they are not enough to suggest that Cboe intended to manipulate the market. Though Cboe may have designed a process with features that made it vulnerable to manipulation, the facts alleged in complaint do not support the conclusion that Cboe knew about these flaws at the time it designed the VIX enterprise or that it purposefully designed the market to facilitate manipulation. And showing that fraud occurred does not support an inference that Cboe must have, therefore, intentionally or recklessly created a market susceptible to manipulation. *See Pugh v. Tribune Co.*, 521 F.3d 686, 694 (7th Cir. 2008) (rejecting a similar "fraud by hindsight" theory of scienter). Plaintiffs go one step further than the plaintiffs in *Pugh* and explain why the design features of the VIX were, in fact, prone to manipulation. But this is still insufficient to show that Cboe included those features to facilitate manipulation. A more compelling inference is that Cboe (like the SEC, who approved nearly all aspects of the design) thought it included adequate safeguards.

Cboe's alleged knowledge of the Does' manipulation does not combine with its knowledge of vulnerabilities to strongly suggest an intent to defraud. Plaintiffs allege two layers of manipulation, the Does' manipulative trading and Cboe's manipulative market structure. Cboe must have scienter with respect to its conduct (aiding and abetting the Does is not enough). While knowledge of a statement's falsity may allow an inference of scienter in a misrepresentation case, *see, e.g., Tellabs II*, 513 F.3d at 709–10, Cboe's knowledge of the Doe Defendants' manipulation is not enough to infer that Cboe acted with the requisite intent for its conduct. Knowing that certain market participants acted fraudulently through one course of conduct does not suggest that the exchange intended to cheat through its behavior. Passive acquiescence is just as strong an inference. As a result, plaintiffs have not adequately pled a strong inference of Cboe's scienter.

C. Commodities Exchange Act

The Commodities Exchange Act provides,

> A registered entity that fails to enforce any bylaw, rule, regulation, or resolution that it is required to enforce by section 7, 7a–1, 7a–2, 7b–3, or 24a of this title, … shall be liable for actual damages sustained by a person who engaged in any transaction on or subject to the rules of such registered entity to the extent of such person's actual losses that resulted from such transaction

> and were caused by such failure to enforce or enforcement of such bylaws, rules, regulations, or resolutions.

7 U.S.C. § 25(b)(1)(A). Section 7(d) outlines core principles for contract markets, including that the "board of trade shall have the capacity and responsibility to prevent manipulation … through market surveillance, compliance, and enforcement practices and procedures." 7 U.S.C. § 7(d)(4).[7]

1. Specificity

Cboe first argues that plaintiffs do not identify any particular failure to enforce a particular rule, instead making "a broadside attack on Cboe's disciplinary program, alleging Cboe should have enforced 'a number of particular rules' against unspecified violators, causing hypothetical deterrence effects on other unspecified violators." [203] at 26. Though plaintiffs allege that Cboe repeatedly violated rules it was required to enforce, its allegations are not so general that they fail to state a claim. Plaintiffs list Rules 601 and 603, both of which are applicable to Cboe Futures and prohibit market manipulation. Plaintiffs further assert that by allowing manipulation to take place, Cboe failed to enforce those rules. Cboe argues plaintiffs' allegations are more general than any previously successful 22(b) claim. This matters, Cboe argues, because without alleging a specific rule violation, it is impossible to assess whether the circumstances warranted enforcement, whether

[7] Cboe points out that there is no direct private right of action under 7 U.S.C. § 7 (also referred to as Section 5). But plaintiffs bring a claim under 7 U.S.C. § 25(b) (also referred to as Section 22), which does provide a private right of action. Section 25(b) references § 7, and plaintiffs' allegations regarding the core principles in § 7, therefore, are relevant to their § 25(b) claim.

enforcement would have made any difference, and if lack of enforcement was done in bad faith. But I read plaintiffs' complaint as alleging that each time a Doe Defendant manipulated the VIX Futures, Cboe failed to enforce its rules prohibiting manipulation. This is sufficiently concrete to assess whether Cboe's conduct otherwise rises to the level of a Commodities Exchange Act violation.

2. Bad Faith

A plaintiff bringing a Commodities Exchange Act claim "must establish that the registered entity … acted in bad faith in failing to take action or in taking such action as was taken." 7 U.S.C. § 25(b)(4). Whether plaintiffs have adequately pled bad faith depends in part on whether Cboe, in causing plaintiffs' injury, was exercising a discretionary power. If an exchange injures a trader through exercise of a discretionary power—such as instituting an emergency resolution or interpreting its own rules—then the plaintiff must plausibly allege that the exchange acted unreasonably or that it had an improper motivation. *Bosco v. Serhant*, 836 F.2d 271, 278 (7th Cir. 1987) ("Discretion implies latitude for judgment, and commodity exchanges must not be deterred from exercising judgment by the prospect of heavy liability if they make a mistake."). If "an exchange's regulation imposes a duty that the exchange *should* know is being flouted, the exchange is acting wrongfully—in an attenuated sense, perhaps, but one sufficient" under the law. *Id.* (holding a reasonable juror could conclude the exchange acted in bad faith where a trader violated the exchange's own rules requiring that orders be made in writing and indicate the customer's designation).

Plaintiffs allege that Cboe acted in bad faith in failing to enforce Commodities Exchange Act regulations and its own rules prohibiting manipulation. Cboe argues that enforcing these rules and regulations was discretionary and that plaintiffs have failed to allege that it acted unreasonably or pursuant to an improper motivation. The regulations provide that Cboe "shall list on the contract market only contracts that are not readily susceptible to manipulation" and that it "shall have the capacity and responsibility to prevent manipulation, price distortion, and disruptions of the delivery or cash-settlement process through market surveillance, compliance, and enforcement." 7 U.S.C. § 7(d)(3), (4). In arguing that preventing manipulation is discretionary, Cboe points out that "[u]nless otherwise determined by the Commission by rule or regulation," it has "reasonable discretion in establishing the manner in which it complies" with these principles. 7 U.S.C. § 7(d)(1)(B).

Even assuming enforcing the regulations constitutes a discretionary function, plaintiffs have plausibly alleged that Cboe also failed to enforce its own rules prohibiting manipulation, including Rules 601 and 603, and that those rules are not discretionary. While an exchange has discretion to interpret its own rules, where a market participant violates a rule—and the exchange knows (or should know) about the violation—the failure to enforce suggests wrongfulness. *Bosco*, 836 F.2d at 278. Cboe points to nothing in the text of Rules 601 or 603, or elsewhere, showing that their enforcement is discretionary, and plaintiffs have adequately alleged that Cboe acted in bad faith in failing to enforce them.

3. Actual Damages

To bring a claim under the Commodities Exchange Act, a plaintiff must have suffered "actual damages" from the defendant's manipulation. 7 U.S.C. § 25(b)(1). For the same reasons that plaintiffs have not pled loss causation, they have not alleged they suffered actual damages as the Commodities Exchange Act requires. Without identifying both sides of a transaction, plaintiffs have not shown they lost money and have not plausibly alleged they suffered actual damages. Because plaintiffs do not assert that the market was constantly suppressed or inflated, their general allegations that they must have been harmed at some point are insufficient to state a claim. *See In re LIBOR-Based Financial Instruments Antitrust Litigation*, 962 F.Supp.2d 606, 620 (S.D.N.Y. 2013).

4. Secondary Liability

In addition to Cboe Futures' primary liability, plaintiffs allege Cboe Global and Cboe Options aided and abetted Cboe Futures and Does in violating the Commodities Exchange Act. The act provides that any person "who willfully aids, abets, counsels, commands, induces, or procures the commission of, a violation of any of the provisions of this chapter, or any of the rules, regulations, or orders issued pursuant to this chapter … may be held responsible for such violation as a principal." 7 U.S.C. § 13c(a). To state a claim for aiding and abetting liability under the Commodity Exchange Act, plaintiffs must allege that Cboe Global and Cboe Options (1) knew of the principal's intent to violate the act, (2) intended to further that violation, and (3) committed some act in furtherance of the principal's objective. *Damato v. Hermanson*, 153 F.3d 464, 473 (7th Cir. 1998).

Plaintiffs argue that because Cboe Global and Cboe Options knowingly benefitted from the ongoing manipulation, it does not matter whether they wanted Does to manipulate its market. Plaintiffs' reliance on *Kohen v. Pacific Inv. Mgmt. Co.*, 244 F.R.D. 469 (N.D. Ill. 2007), for this proposition is misplaced. There, the court merely inferred from the totality of the circumstances—including allegations that the defendant fund had accumulated unprecedented positions at suspicious times, combined with the fund's awareness that it had the ability to influence prices—that the fund had intended to manipulate prices. *Id.* at 482–84. Plaintiffs do not similarly allege anything suspicious about Cboe Global's or Cboe Option's actions. To state a claim for aiding and abetting liability, plaintiffs were required to allege that defendants intended to further the primary violations, and they have failed to do so.

Plaintiffs also bring a principal-agent liability claim against all defendants. *See* 7 U.S.C. § 2. ("The act, omission, or failure of any official, agent, or other person acting for any individual, association, partnership, corporation, or trust within the scope of his employment or office shall be deemed the act, omission, or failure of such individual, association, partnership, corporation, or trust, as well as of such official, agent, or other person."). To the extent plaintiffs allege that Cboe Global and Cboe Exchange are liable as agents of Cboe Futures—because defendants are related corporations who should be able to sort out their own involvement—plaintiffs need not specify, at this stage, which defendant was responsible for which acts. *See Jepson,* *Inc. v. Makita Corp.*, 34 F.3d 1321, 1328–29 (7th Cir. 1994). But the claim against Cboe Global and Cboe Exchange as agents fails for the same reasons as the underlying claim against Cboe Futures. To the extent this claim alleges that the Cboe entities are liable for the acts of their employees, it too fails for the same reasons as the underlying claim. Plaintiffs have failed to allege secondary liability claims.

D. Negligence

Plaintiffs bring an ordinary negligence claim against Cboe, alleging Cboe owed them a duty of reasonable care in designing, testing, and promoting the VIX calculation process, the SOQ settlement process, VIX Futures, VIX Options, and SPX Options. [140] ¶¶ 241–42. Plaintiffs withdraw their negligence claims with respect to VIX and SPX Options,[8] leaving only their claim based on VIX Futures.

Cboe argues the Commodities Exchange Act preempts plaintiffs' negligence claim. "A federal law may preempt a state law expressly, impliedly through the doctrine of conflict preemption, or through the doctrine of field (also known as complete) preemption." *Boomer v. AT&T Corp.*, 309 F.3d 404, 417 (7th Cir. 2002). "Congress did not intend to preempt the field of futures trading," nor did it expressly preempt state-law claims. *Am. Agric. Movement, Inc. v. Bd. of Trade of City of Chi.*, 977 F.2d 1147, 1155 (7th Cir. 1992). But the Commodities Exchange Act preempts conflicting state-law claims, which includes those that bear upon the actual operation

[8] Cboe argues that SLUSA warrants dismissal of the entire complaint, not just plaintiffs' Securities Act claims. *See Goldberg v. Bank of America, N.A.*, 846 F.3d 913, 919–920 (7th Cir. 2017) (Flaum, J., concurring). Because dismissal is warranted for the other reasons discussed, I do not address this argument.

of commodity futures markets. *Id*. at 1156. In other words, "[w]hen application of state law would directly affect trading on or the operation of a futures market," it is preempted; when "the application of state law would affect only the relationship between brokers and investors or other individuals involved in the market, preemption is not mandated." *Id*. at 1156–57.

In *American Agriculture Movement*, the court held that the Commodities Exchange Act preempted the plaintiff's state-law breach of fiduciary duty and negligence claims against the Chicago Board of Trade for implementing an emergency resolution. *Id*. at 1157. It reasoned that allowing plaintiff to bring its state-law claims would frustrate Congress's intent to bring the markets under a uniform set of regulations. At the same time, the court acknowledged that different states impose dissimilar fiduciary duties upon brokers, which may affect private relationships. But because subjecting private relationships to varying standards would not hamper the efficient operation of the futures market, the act would not preempt those claims.

Cboe argues that plaintiffs' negligence claim would clearly affect trading on or operation of a futures market. In response, plaintiffs argue that the preemption inquiry mirrors the immunity analysis, and because Cboe was not acting as a regulator, there is no preemption. *See In re Facebook*, 986 F.Supp.2d at 454 n. 15 (noting "preemption precludes allowing state law claims that arise from actions taken by Defendants in their regulatory capacity as agents of the government or even actions 'incident to the exercise of regulatory power'" (quoting *NYSE Specialists*, 503 F.3d at 98)). But the two inquiries are not one in the same. *Compare City of*

Providence, 878 F.3d 36 (holding an exchange is not immune for providing co-location services, proprietary data feeds, and complex order types), *with Lanier*, 838 F.3d 139 (holding the Securities Exchange Act preempts a breach-of-contract claim where the SEC has approved the use co-location services, proprietary data feeds, and complex order types). Because the SEC approved much of the design process that forms the basis for plaintiffs' negligence claim, subjecting Cboe to conflicting state negligence regimes, even though that conduct is non-regulatory, would run counter to congressional intent that markets be subject to uniform standards. Subjecting Cboe to varying standards would hamper the efficient operation of the futures market, and so the Commodities Exchange Act preempts plaintiffs' negligence claims. Because plaintiffs' negligence claim is preempted, I do not reach Cboe's alternative arguments that plaintiffs failed to state a claim and that recovery is barred by the economic loss doctrine.

IV. Conclusion

Defendants' motion to dismiss [184] is granted. Plaintiffs' negligence claim is dismissed with prejudice, but the other claims are dismissed without prejudice and with leave to file an amended complaint. Any amended complaint must be filed by June 19, 2019, and a status hearing is set for June 14, 2019 at 9:45 a.m.

ENTER:

Manish S. Shah
United States District Judge

Date: May 29, 2019