

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

IN RE: CHICAGO BOARD OPTIONS
EXCHANGE VOLATILITY INDEX
MANIPULATION ANTITRUST
LITIGATION

This Document Relates to All Actions

Case No. 1:18-cv-04171

MDL No. 2842

Honorable Manish S. Shah

**MEMORANDUM OF LAW IN OPPOSITION TO
THE CBOE DEFENDANTS' MOTION TO DISMISS**

TABLE OF CONTENTS

INTRODUCTION	1
LEGAL STANDARD.....	2
FACTUAL BACKGROUND.....	3
A. CBOE Creates Proprietary SPX and VIX Products to Drive Its Profits.....	3
B. CBOE Designs and Operates Flawed Products and Processes	4
C. CBOE Knew That Its Design Flaws Were Being Routinely Exploited.....	6
D. CBOE Nonetheless Continues, and Even Expands, its VIX Franchise	8
E. The VIX Manipulation Is Exposed	10
ARGUMENT	11
I. PLAINTIFFS PLAUSIBLY PLEAD THAT THE FLAWS IN CBOE’S VIX FRANCHISE WERE ROUTINELY EXPLOITED	11
II. PLAINTIFFS ADEQUATELY PLEAD SECURITIES EXCHANGE ACT CLAIMS....	16
A. Plaintiffs Plausibly Plead CBOE’s Deceptive and Manipulative Conduct.....	17
1. CBOE engaged in deceptive and manipulative conduct.....	17
2. CBOE’s attempts to shoehorn Plaintiffs’ claims into Rule 10b-5(b) fail	19
3. CBOE is liable as a primary violator	21
B. Plaintiffs Plead a Strong Inference of CBOE’s Scienter	22
1. The Complaint alleges CBOE knew that the flaws in its VIX franchise were routinely abused	23
2. The Complaint alleges CBOE had the motive and opportunity	26
C. Plaintiffs Plausibly Plead Reliance	28
D. Plaintiffs Plausibly Plead Causation and Article III Standing	30
E. CBOE Is Not Entitled to Immunity	35
1. CBOE is only immune for regulatory acts taken when standing in the shoes of the SEC	35

2.	CBOE was not standing in the shoes of the SEC when creating, marketing and selling its VIX franchise	36
3.	Immunity is not gained for Plaintiffs’ Securities Exchange Act claims merely because Plaintiffs also allege Commodity Exchange Act claims	41
F.	That Regulators Approved Certain of CBOE’s Products or Processes Does Not Trigger Immunity or Preemption	43
G.	Relying in Part on the Defective Design Does Not Render the Claim Untimely	44
III.	PLAINTIFFS PLAUSIBLY PLEAD COMMODITY EXCHANGE ACT CLAIMS	46
A.	The Commodity Exchange Act Provides a Private Right of Action to Plaintiffs	46
B.	Plaintiffs’ Allegations Are Sufficiently Particular	47
C.	Plaintiffs Plausibly Plead Causation	48
D.	Plaintiffs Plausibly Plead That CBOE Acted in Bad Faith	51
1.	In the Seventh Circuit, “bad faith” is present when an exchange negligently fails to fulfill a mandatory obligation	51
2.	Plaintiffs plausibly plead bad faith even by CBOE’s standards	52
E.	Plaintiffs Also Plausibly Plead Secondary Liability Claims	55
IV.	PLAINTIFFS PROPERLY ASSERT AND PLAUSIBLY PLEAD NEGLIGENCE CLAIMS	57
	CONCLUSION	59

TABLE OF AUTHORITIES

Cases	<u>Page</u>
<i>Affiliated Ute Citizens of Utah v. United States</i> , 406 U.S. 128 (1972).....	21, 30
<i>Alaska Elec. Pension Fund v. Bank of Am. Corp.</i> , 175 F. Supp. 3d 44 (S.D.N.Y. 2016).....	12, 14, 33, 34
<i>Allen v. Wright</i> , 468 U.S. 737 (1984).....	49
<i>American Agriculture Movement, Inc. v. Board of Trade</i> , 977 F.2d 1147 (7th Cir. 1992)	58
<i>AnchorBank, FSB v. Hofer</i> , 649 F.3d 610 (7th Cir. 2011)	2, 28
<i>Anderson News, LLC. v. Am. Media, Inc.</i> , 680 F.3d 162 (2d Cir. 2012).....	14
<i>Anschutz Corp. v. Merrill Lynch & Co. Inc.</i> , 785 F. Supp. 2d 799 (N.D. Cal. 2011)	27, 29
<i>Apex Oil Co. v. DiMauro</i> , 641 F. Supp. 1246 (S.D.N.Y. 1986).....	55
<i>Armstrong v. Daily</i> , 786 F.3d 529 (7th Cir. 2015)	52
<i>Ashcroft v. Iqbal</i> , 556 U.S. 662 (2009).....	3
<i>ATSI Comm., Inc. v. Shaar Fund, Ltd.</i> , 493 F.3d 87 (2d Cir. 2007).....	17, 25, 29
<i>Auriemma v. Montgomery</i> , 860 F.2d 273 (7th Cir. 1988)	35
<i>Babbitt v. Sweet Home Chapter of Communities for a Great Or.</i> , 515 U.S. 687 (1995).....	50
<i>Bell Atlantic Corp. v. Twombly</i> , 550 U.S. 544 (2007).....	2, 23
<i>Bigelow v. RKO Radio Pictures</i> , 327 U.S. 251 (1946).....	31
<i>Boatwright v. Walgreen Co.</i> , 2011 WL 843898 (N.D. Ill. Mar. 4, 2011).....	34
<i>Bosco v. Serhant</i> , 836 F.2d 271 (7th Cir. 1987)	47, 49, 51, 52, 53, 54

<i>Braman v. The CME Grp.</i> , 149 F. Supp. 3d 874 (N.D. Ill. 2015)	47, 48, 49
<i>Brawer v. Options Clearing Corp.</i> , 807 F.2d 297 (2d Cir. 1986).....	55
<i>Caremark, Inc. v. Coram Healthcare Corp.</i> , 113 F.3d 645 (7th Cir. 1997)	49
<i>Central Bank of Denver, N.A. v. First Interstate Bank of Denver, N.A.</i> , 511 U.S. 164 (1994).....	22
<i>Citadel Sec. LLC v. Chicago Bd. Options Exch., Inc.</i> , 2018 WL 5264195 (N.D. Ill. Oct. 23, 2018).....	36, 40
<i>City of Providence v. Bats Glob. Mkts., Inc.</i> , 878 F.3d 36 (2d Cir. 2017).....	passim
<i>CompuDyne Corp. v. Shane</i> , 453 F. Supp. 2d 807 (S.D.N.Y. 2006).....	16
<i>CP Stone Fort Holdings, LLC v. Doe(s)</i> , 2016 WL 5934096 (N.D. Ill. Oct. 11, 2016) (“ <i>CP Stone I</i> ”).....	16, 32, 45
<i>CP Stone Fort Holdings, LLC v. Doe(s)</i> , 2017 WL 1093166 (N.D. Ill. Mar. 22, 2017) (“ <i>CP Stone II</i> ”).....	16, 17, 29
<i>CP Stone Fort Holdings, LLC v. Doe(s)</i> , No. 16 C 4991, Dkt. No. 67 (N.D. Ill. Oct. 3, 2017) (“ <i>CP Stone III</i> ”)	32
<i>Credit Suisse Sec. (USA) LLC v. Billing</i> , 551 U.S. 264 (2007).....	43, 44
<i>Dexter v. Depository Trust & Clearing Corp.</i> , 406 F. Supp. 2d 260 (S.D.N.Y. 2005).....	39
<i>DGM Invs., Inc. v. New York Futures Exch., Inc.</i> , 265 F. Supp. 2d 254 (S.D.N.Y. 2003).....	54, 56
<i>DH2, Inc. v. Athanassiades</i> , 404 F. Supp. 2d 1083 (N.D. Ill. 2005)	31
<i>DL Capital Group v. Nasdaq Stock Market</i> , 409 F.3d 93 (2d Cir. 2005).....	39
<i>Dodona I, LLC v. Goldman, Sachs & Co.</i> , 847 F. Supp. 2d 624 (S.D.N.Y. 2012).....	19, 21, 24
<i>Fezzani v. Bear, Stearns & Co. Inc.</i> , 716 F.3d 18 (2d Cir. 2013).....	29
<i>Fin. Guar. Ins. Co. v. Putnam Advisory Co.</i> , 783 F.3d 395 (2d Cir. 2015).....	49
<i>Firestone Fin. Corp. v. Meyer</i> , 796 F.3d 822 (7th Cir. 2015)	3

Fischer v. Avanade, Inc.,
519 F.3d 393 (7th Cir. 2008) 45

Gelboim v. Bank of Am. Corp.,
823 F.3d 759 (2d Cir. 2016)..... 33

GMP Techs., LLC v. Zicam, LLC,
2009 WL 5064762 (N.D. Ill. Dec. 9, 2009)..... 52

Goldenson v. Steffens,
802 F. Supp. 2d 240 (D. Me. 2011) 45

Gosselin v. First Trust Advisors L.P., Judge Der-Yeghiayan,
2009 WL 5064295 (N.D. Ill. Dec. 17, 2009)..... 28

Hemi Group, LLC v. City of New York,
559 U.S. 1 (2010)..... 49, 50

Higginbotham v. Baxter Int’l, Inc.,
495 F.3d 753 (7th Cir. 2007) 26

Hochfelder v. Midwest Stock Exch.,
503 F.2d at 364 (7th Cir. 1976)..... 52

Howe v. Shchekin,
238 F. Supp. 3d 1046 (N.D. Ill. 2017) 44, 45

Huntley v. Chicago Bd. of Options Exch.,
161 F. Supp. 3d 612 (N.D. Ill. 2015) 36, 41

IBEW Local 90 Pension Fund v. Deutsche Bank AG,
2013 WL 1223844 (S.D.N.Y. Mar. 27, 2013) 20

In re Akorn, Inc. Sec. Litig.,
240 F. Supp. 3d 802 (N.D. Ill. 2017) 31, 32

In re Broiler Chicken Antitrust Litig.,
290 F. Supp. 3d 772 (N.D. Ill. 2017) 14

In re Commodity Exch., Inc. Gold Futures and Options Trading Litig.,
213 F. Supp. 3d 631 (S.D.N.Y. 2016)..... 12, 14, 15, 33, 35, 56

In re Dynex Capital, Inc. Sec. Litig.,
2006 WL 314524 (S.D.N.Y. Feb. 10, 2006)..... 45

In re Enron Corp. Sec. Derivative & “ERISA” Litig.,
529 F. Supp. 2d 644 (S.D. Tex. 2006) 30

In re Facebook, Inc., IPO Sec. & Deriv. Litig.,
986 F. Supp. 2d 428 (S.D.N.Y. 2013)..... passim

In re Foreign Exch. Benchmark Rates Antitrust Litig.,
2016 WL 5108131 (S.D.N.Y. Sept. 20, 2016)..... 49, 56

In re Foreign Exch. Benchmark Rates Antitrust Litig.,
74 F. Supp. 3d 581 (S.D.N.Y. 2015)..... 33, 34

<i>In re Galena Biopharma, Inc. Sec. Litig.</i> , 117 F. Supp. 3d 1145 (D. Or. 2015)	17, 22
<i>In re GenesisIntermedia, Inc. Sec. Litig.</i> , 2007 WL 1953475 (C.D. Cal. June 28, 2007)	29
<i>In re GlenFed Sec. Litig.</i> , 42 F.3d 1541 (9th Cir. 1994)	52
<i>In re Global Crossing, Ltd. Sec. Litig.</i> , 322 F. Supp. 2d 319 (S.D.N.Y. 2004).....	21
<i>In re iBasis, Inc. Deriv. Litig.</i> , 532 F. Supp. 2d 214 (D.N.H. 2007).....	45
<i>In re Initial Pub. Offering Sec. Litig.</i> , 241 F. Supp. 2d 281 (S.D.N.Y. 2003) (“ <i>IPO</i> ”).....	17, 30
<i>In re LIBOR-Based Fin. Instruments Antitrust Litig.</i> , 962 F. Supp. 2d 606 (S.D.N.Y. 2013) (“ <i>LIBOR II</i> ”)	34
<i>In re LIBOR-Based Fin. Instruments Antitrust Litig.</i> , 299 F. Supp. 3d 430 (S.D.N.Y. 2018) (“ <i>LIBOR VII</i> ”).....	33
<i>In re London Silver Fixing, Ltd., Antitrust Litig.</i> , 213 F. Supp. 3d 530 (S.D.N.Y. 2016).....	12, 33
<i>In re Motorola Sec. Litig.</i> , 2004 WL 2032769 (N.D. Ill. Sept. 9, 2004)	25, 26
<i>In re Natural Gas Commodity Litig.</i> , 358 F. Supp. 2d 336 (S.D.N.Y. 2005).....	48
<i>In re NYSE Specialists Sec. Litig.</i> , 503 F.3d 89 (2d Cir. 2007).....	36, 41
<i>In re Parmalat Sec. Litig.</i> , 376 F. Supp. 2d 472 (S.D.N.Y. 2005).....	25
<i>In re Peregrine Fin. Grp. Customer Litig.</i> , 2014 WL 4784113 (N.D. Ill. Sept. 25, 2014)	54
<i>In re Zoran Corp. Deriv.Litig.</i> , 511 F. Supp. 2d 986 (N.D. Cal. 2007)	45
<i>In re ZZZZ Best Sec. Litig.</i> , 864 F. Supp. 960 (C.D. Cal. 1994)	21
<i>J. Truett Payne Co. v. Chrysler Motors Corp.</i> , 451 U.S. 557 (1981).....	31
<i>Jablonski v. Ford Motor Co.</i> , 955 N.E.2d 1138 (Ill. 2011).....	59
<i>Jepson, Inc. v. Makita Corp.</i> , 34 F.3d 1321 (7th Cir. 1994)	56

John v. Whole Foods Mkt. Grp. Inc.,
858 F.3d 732 (2d Cir. 2017)..... 31

Johnson v. Root,
812 F. Supp. 2d 914 (N.D. Ill. 2011) 35

Khoja v. Orexigen Therapeutics, Inc.,
899 F.3d 988 (9th Cir. 2018) 27

Kochert v. Greater Lafayette Health Servs.,
463 F.3d 710 (7th Cir. 2006) 31

Kohen v. Pacific Inv. Management Co.,
244 F.R.D. 469 (N.D. Ill. 2007)..... 57

Lanier v. Bats Exch. Inc.,
838 F.3d 139 (2d Cir. 2016)..... 44

Lentell v. Merrill Lynch & Co.,
396 F.3d 161 (2d Cir. 2005)..... 20

Makor Issues & Rights, Ltd. v. Tellabs Inc.,
513 F.3d 702 (7th Cir. 2008) (“*Tellabs II*”)..... 22, 25

Messer v. E.F. Hutton & Co.,
833 F.2d 909 (11th Cir. 1987) 57

Norfolk Cty. Ret. Sys. v. Ustian,
2009 WL 2386156 (N.D. Ill. July 28, 2009)..... 26

Norton v. Southern Utah Wilderness Alliance,
542 U.S. 55 (2004)..... 47

Novak v. Kasaks,
216 F.3d 300 (2d Cir. 2000)..... 25

Opulent Fund v. Nasdaq Stock Market, Inc.,
2007 WL 3010573 (N.D. Cal. Oct. 12, 2007)..... 37, 43, 44, 58

Pension Trust Fund for Operating Eng’rs v. DeVry Educ. Grp., Inc.,
2017 WL 6039926 (N.D. Ill. Dec. 6, 2017)..... 53

Pension Trust Fund for Operating Engineers v. Kohl’s Corp.,
895 F.3d 933 (7th Cir. 2018) 23, 26

Ploss v. Kraft Foods Grp., Inc.,
197 F. Supp. 3d 1037 (N.D. Ill. 2016) 29

Public Pension Fund Grp. v. KV Pharm. Co.,
679 F.3d 972 (8th Cir. 2012) 20

Pugh v. Tribune Co.,
521 F.3d 686 (7th Cir. 2008) 25, 26

Quaak v. Dexia S.A.,
357 F. Supp. 2d 330 (D. Mass. 2005) 45

<i>Roth v. Aon Corp.</i> , 2008 WL 656069 (N.D. Ill. Mar. 7, 2008).....	26
<i>Runnion v. Girl Scouts of Greater Chicago & Nw. Ind.</i> , 786 F.3d 510 (7th Cir. 2015)	59
<i>Sam Wong & Son, Inc. v. New York Merc. Exch.</i> , 735 F.2d 653 (2d Cir. 1984).....	47, 53, 54
<i>Santa Fe Indus. v. Green</i> , 430 U.S. 462 (1977).....	19, 21
<i>SEC v. ITT Educ. Servs.</i> , 303 F. Supp. 3d 746 (S.D. Ind. 2018)	20
<i>SEC v. Masri</i> , 523 F. Supp. 2d 361 (S.D.N.Y. 2007).....	16
<i>SEC v. Mercury Interactive, LLC</i> , 2011 WL 5871020 (N.D. Cal. Nov. 22, 2011)	20
<i>SEC v. Santos</i> , 355 F. Supp. 2d 917 (N.D. Ill. 2003)	17, 25, 30
<i>SEC v. Sells</i> , 2012 WL 3242551 (N.D. Cal. Aug. 10, 2012)	20
<i>SEC v. Zandford</i> , 535 U.S. 813 (2002).....	18
<i>Sharette v. Credit Suisse Int’l</i> , 127 F. Supp. 3d 60 (S.D.N.Y. 2015).....	19, 21, 23, 25, 27
<i>Simonian v. Maybelline LLC</i> , 2011 WL 814988 (N.D. Ill. Mar. 1, 2011).....	48
<i>Sonterra Capital Master Fund Ltd. v. Credit Suisse Group AG</i> , 277 F. Supp. 3d 521 (S.D.N.Y. 2017).....	34
<i>Sparta Surgical Corp. v. Nat’l Ass’n of Sec. Dealers</i> , 159 F.3d 1209 (1998).....	36, 41
<i>Standard Inv. Chartered, Inc. v. Nat’l Ass’n of Sec. Dealers, Inc.</i> , 637 F.3d 112 (2d Cir. 2011).....	35
<i>Steinbrecher v. Oswego Police Officer Dickey</i> , 138 F. Supp. 2d 1103 (N.D. Ill. 2001)	27
<i>Stoneridge Investment Partners v. Scientific-Atlanta</i> , 552 U.S. 148 (2008).....	22
<i>Swanson v. Citibank, N.A.</i> , 614 F.3d 400 (7th Cir. 2010)	3
<i>Tellabs, Inc. v. Makor Issues & Rights, Ltd</i> , 551 U.S. 308 (2007).....	15, 22

Troyer v. National Futures Ass’n,
2017 WL 2971962 (N.D. Ind. July 12, 2017) 39

Troyer v. National Futures Ass’n,
290 F. Supp. 3d 874 (N.D. Ind. 2018) 47, 51, 52

Vitanza v. Bd. of Trade of City of N.Y.,
2002 WL 424699 (S.D.N.Y. Mar. 18, 2002) 54

Weissman v. Nat’l Ass’n of Sec. Dealers, Inc.,
500 F.3d 1293 (11th Cir. 2007) 35, 39

W. Capital Design, LLC v. New York Mercantile Exch.,
180 F. Supp. 2d 438 (S.D.N.Y. 2001)..... 51, 54, 55

W. Capital Design, LLC v. New York Mercantile Exch.,
25 F. App’x 63, 65 (2d Cir. 2002).....54

WPP Luxembourg Gamma Three Sarl v. Spot Runner, Inc.,
655 F.3d 1039 (9th Cir. 2011) 20

Zimmerman v. Chicago Board of Trade,
360 F.3d 612 (7th Cir. 2004) 54

Zucco Partners, LLC v. Digimarc Corp.,
552 F.3d 981 (9th Cir. 2009) 26

Statutory Authorities

7 U.S.C. § 2(a)(1)(B) 55

7 U.S.C. § 7..... 46, 47

7 U.S.C. § 13c(a)..... 46

7 U.S.C. § 25(b)(1)(A)..... 46

15 U.S.C. § 78j(b)..... 16

Rules and Regulations

17 C.F.R. § 240.10b-5(a), (c) passim

Fed. R. Civ. P. 8(a)(2) 31

Fed. R. Civ. P. 9(b)..... 17, 52

INTRODUCTION

This case involves the creation, marketing, and operation of a VIX franchise that has generated massive profits for CBOE. The settlement value of VIX-related products is determined by a “Special Opening Quotation” (“SOQ”) auction process created and operated by CBOE. The deeply flawed design of that process made it particularly vulnerable to manipulation through strategically timed trading activity. As the exclusive administrator of its proprietary VIX-related products, CBOE knew these vulnerabilities existed, and that they were routinely exploited by manipulators at the expense of other investors. Rather than fix or disclose its faulty process, CBOE sought to keep its skyrocketing transaction fees rolling in; by 2015, CBOE had *quadrupled* its offerings of VIX-related products, continued to publish settlement values it knew were manipulated, and even granted rewards to certain manipulators (who were also some of CBOE’s largest customers) to encourage them to continue their activities.

CBOE argues the only evidence of manipulation is a 2017 academic paper. That paper does give valid support to Plaintiffs’ allegations. But the core analyses in the Complaint were designed and carried out by Plaintiffs’ experts. Those numerous analyses show suspicious trading behaviors during settlement days that can only be explained by manipulation. They also show that these patterns broke once the regulatory spotlight was turned to the VIX in 2018. Courts have repeatedly rejected motions to dismiss in financial manipulation cases based on less data than is provided here. CBOE’s methodological critiques and counter-explanations have no merit, and, in any event, are inappropriate at the pleading stage. And CBOE’s feigned confusion as to *which* of the monthly (later, weekly) SOQ processes are at issue should be ignored: Plaintiffs have plausibly pled that *all* of those processes were corrupted.

CBOE devotes a significant portion of its argument regarding Section 10(b) to attacking a Rule 10b-5(b) misstatements claim. But Plaintiffs do not actually assert any such claim.

Plaintiffs allege that by designing, selling, and operating proprietary products that CBOE knew were being manipulated, CBOE employed a device or scheme to defraud in violation of Rule 10b-5(a) and (c). The crux of Plaintiffs' actual claim—that CBOE sold deceptive VIX products for the sole purpose of driving profits—also means that CBOE cannot claim absolute immunity, which is granted only in the rare circumstances where an organization is standing “in the shoes” of the SEC and acting purely in a regulatory role.

CBOE is also liable under the Commodity Exchange Act, which requires a regulated exchange to have and enforce rules preventing price manipulation. CBOE failed to enforce its own rules against manipulation and fraud when it created and operated a settlement process that was vulnerable to manipulation, encouraged its favored customers to manipulate that process, and knowingly allowed other investors to be harmed. CBOE's demands for specifics, and its eliding of Plaintiffs' actual theories of liability and harm, echo its Securities Exchange Act arguments and thus fail for many of the same reasons. And CBOE's argument that a heightened pleading standard is required to show “bad faith” directly contradicts binding Seventh Circuit law. In any event, the Complaint's well-pled allegations are more than sufficient even under CBOE's improper, elevated standard.

By its conduct, CBOE is also liable under the common law of negligence. As with Plaintiffs' Securities Exchange Act claims, this claim is not precluded, because it relates to activities outside of CBOE's regulatory functions.

LEGAL STANDARD

On this motion, the Court should accept all factual allegations as true and construe them in the light most favorable to Plaintiffs. *See AnchorBank, FSB v. Hofer*, 649 F.3d 610, 614 (7th Cir. 2011). Plaintiffs' allegations are sufficient if they “raise a right to relief above the speculative level,” *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 555 (2007), and “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, 678 (2009). “[T]he plausibility standard does not allow a court to question or otherwise disregard nonconclusory factual allegations simply because they seem unlikely.” *Firestone Fin. Corp. v. Meyer*, 796 F.3d 822, 826-27 (7th Cir. 2015). In other words, “the court will ask itself *could* these things have happened, not *did* they happen.” *Swanson v. Citibank, N.A.*, 614 F.3d 400, 404 (7th Cir. 2010).

FACTUAL BACKGROUND

A. CBOE Creates Proprietary SPX and VIX Products to Drive Its Profits

Defendants Cboe Global Markets, Inc., Cboe Futures Exchange, LLC, and Chicago Board Options Exchange, Inc. (collectively, “CBOE”) operate and oversee the Chicago Options Exchange and the Chicago Futures Exchange. Dkt. No. 140 (“Complaint”) ¶¶ 26-28. CBOE is a public company focused on growing its profits and revenues for the benefit of its shareholders. To further this objective, CBOE created a suite of proprietary derivative products that principally derive from its exclusive licensing agreement with Standard & Poor’s. CBOE has monetized its exclusive right to link benchmarks and derivatives to the S&P 500 Index by building a VIX franchise that sees trading of billions of dollars of instruments. *Id.* ¶¶ 1-2, 151.

First, CBOE created and sold its “flagship” options contracts, SPX Options, which allow traders to take positions (make bets) on the S&P 500 Index. *Id.* ¶¶ 43-44.¹ SPX Options are available for trading solely on the Chicago Options Exchange. *Id.* Next, CBOE created its own proprietary financial benchmark, the Volatility Index (“VIX”), which uses SPX Options to

¹ An option contract is an agreement that gives the buyer the right—but not the obligation—to either buy (in the case of a “call” option) or to sell (in the case of a “put” option) a particular commodity or financial instrument at a predetermined price (the “strike price”) on a predetermined date (the “expiry date”). Complaint ¶ 35.

measure the expected volatility of the equity market. *Id.* ¶¶ 47-49. Finally, CBOE created and began selling VIX Futures and VIX Options. *Id.* ¶ 2 & n.1.²

B. CBOE Designs and Operates Flawed Products and Processes

Because “the VIX” cannot be delivered like a physical good, both VIX Options and VIX Futures are cash-settled. Complaint ¶ 41. This means that CBOE runs a calculation on the day that VIX Options and Futures are due to expire to determine how much cash (if any) should change hands. *Id.* ¶¶ 36, 55. While the value of the intraday VIX is calculated every 15 seconds based on actual trading data for SPX Options, CBOE designed and created the SOQ process to determine the cash settlement value for VIX Options and Futures. *Id.* ¶¶ 6, 51, 55-64. Rather than using data from SPX Options traded in the open market, CBOE separately determines the cash-settlement value of each VIX Option and Future based on a single auction limited to a specially selected group of market participants. *Id.* ¶¶ 6, 58-63.

By design, CBOE allows only certain (anonymous) traders to participate in its SOQ settlement process. *Id.* ¶¶ 30, 58-62, 207. Prior to September 2007, CBOE employed an “Order Book Official” who worked with these select traders to ensure that settlement values were not at risk of being influenced by orders that did not reflect prevailing market conditions. *Id.* ¶ 57. As CBOE prepared to take itself public, it terminated this position. *Id.* CBOE officials—including John Johnston (Vice President of Execution Services) and Phil Slocum (Executive Vice President of Trading Operations)—were warned about the risks of removing this safeguard. *Id.*

The SOQ is based on “out-of-the-money” SPX Options. *Id.* ¶ 76.³ Such options trade in far lower volumes than VIX Options and VIX Futures. *Id.* As a result, trading a small amount

² A futures contract involves an obligation to buy or sell a particular commodity or financial instrument at a predetermined price on a predetermined date. Complaint ¶ 40.

³ An option is “out of the money” if the holder will not make money by exercising the option. For example, if an option holder has the right to buy (a “call”) a widget at a price of \$300, and the market

of illiquid SPX Options can influence the much more valuable market for VIX Futures and VIX Options. *Id.* ¶ 77. And CBOE’s SOQ calculations are done over a very short time window. *Id.* ¶¶ 77-78. These factors make the structure of CBOE’s SOQ process particularly vulnerable to manipulation through strategically timed trading activity, i.e., “banging the close.” *Id.*

CBOE’s SOQ process starts close to the prevailing at-the-money price for an SPX Option and proceeds outwards in both directions, resulting in calculations based on strike prices for options that are more and more out of the money. *Id.* ¶ 51. Quote after quote are included in CBOE’s settlement calculation until there are two strike prices in a row for which there are zero bids. *Id.* ¶¶ 51-52, 81. This makes CBOE’s SOQ process more susceptible to manipulation because if the zero bid “gaps” are filled by persons manipulating the process, the algorithm continues to include options that are more and more out of the money. *Id.* ¶¶ 82-83. This vulnerability is further exacerbated by the fact that CBOE’s SOQ formula gives *more* weight to *further* out-of-the-money SPX Options (and particularly out-of-the-money put options). *Id.* ¶¶ 84-87.

All these flaws mean that, in the words of a former banker, “you could push around a large dollar value of futures by trading a small dollar value in options . . . [I]f you are going to manipulate a tradable market, the VIX looks pretty tempting.” *Id.* ¶ 74. CBOE was well aware of these vulnerabilities and the opportunities they present for manipulators to exploit CBOE’s algorithm at the expense of other investors. But it fixed nothing. *Id.* ¶¶ 78, 87, 136, 138, 158. Even worse, CBOE continued to grant special powers and rewards to certain of the Doe Defendants—such as the power to place strategy orders, and trading fee discounts—in a way that

price of the widget was \$200, the option would be worthless because the option holder would not want to exercise the option to buy the widget for \$300 when it could buy it on the open market for \$200. Complaint ¶¶ 37-38.

further enabled and encouraged the Doe Defendants to carry out manipulation. *Id.* ¶¶ 60 & n.14, 76-78.

C. CBOE Knew That Its Design Flaws Were Being Routinely Exploited

As the exclusive administrator of SPX Options, VIX Options, VIX Futures, and the SOQ process, CBOE had a front-row seat for every SOQ settlement to see exactly who was doing what, when, and in what instruments. Complaint ¶¶ 135-36. Indeed, CBOE created numerous departments responsible for monitoring this data (e.g., the SPX Market Performance Committee, Business Conduct Committee, Department of Market Regulation, SPX Floor Procedure Committee, and Risk Committee). *Id.* ¶ 139. And CBOE admits that its “regulatory group actively surveils for potential VIX settlement manipulation.” *Id.* CBOE’s chief regulatory officer likewise has stated that CBOE “has a dedicated regulatory department that works with FINRA to monitor . . . trading activity that could impact the VIX settlement.” *Id.*

Given CBOE’s active surveillance of its trading data, it clearly knew the flaws in its SOQ process were being exploited on a regular basis throughout the class period.⁴ Even the much more limited public data confirm this:

First, puts are a more powerful tool for SOQ manipulation than calls, because of the way CBOE’s SOQ formula works. *Id.* ¶ 87. During SOQ windows, CBOE’s data evidences a uniquely disproportionate trading in puts over calls. *Id.* ¶¶ 92-94. CBOE thus knew that market actors were inexplicably favoring the strongest tool for manipulation *at exactly the time* that manipulation was possible. *Id.* ¶ 95.

⁴ CBOE describes the Complaint as only “speculat[ing]” that the flaws in the VIX process “might have” been exploited. Dkt. No. 185 (“MTD”) at 1. CBOE mischaracterizes the Complaint, which alleges, among other things, that “the VIX settlement process was being routinely hijacked by the John Doe Defendants.” Complaint ¶ 73; *see, e.g., id.* ¶¶ 79, 82, 87, 117.

Second, CBOE knew that trading volume for SPX Options spiked on settlement days—just as one would expect if those products were being used to manipulate the SOQ process. *Id.* ¶¶ 96-98.

Third, this spike on settlement days was not uniform, as it would be if it was the result of “innocent” portfolio rollovers or other legitimate market activity. To the contrary, CBOE knew that SPX *put* options were traded *more often* on settlement days the *further* out of the money they became. *Id.* ¶¶ 99-105. In a market free of manipulation, one would instead expect option trading volume to *decrease* the further out-of-the-money the put options became. *Id.* ¶ 99.

Fourth, CBOE knew that the spike in trading volume on settlement days was concentrated in SPX Options with the widest gap between consecutive strike prices—which also carry higher weight in CBOE’s SOQ algorithm. *Id.* ¶¶ 106-08. CBOE thus knew that, solely on settlement days, market actors were abnormally focused on the types of SPX Options that carry the most weight in CBOE’s SOQ formula. *Id.*

Fifth, CBOE knew that the spike in trading volume on settlement days was disproportionately concentrated in SPX Options that were expiring in exactly 30 days *and* were out of the money. *Id.* ¶¶ 109-11. This is significant because CBOE included only SPX Options with these characteristics in its SOQ calculation. *Id.* ¶ 109. In other words, here again, CBOE saw that the increased trading volume on settlement days was being driven by trading in the exact instruments that would impact its SOQ process, providing even more compelling evidence of manipulation. *Id.* ¶¶ 109, 111.

Sixth, CBOE knew that market actors were taking advantage of the flaws in CBOE’s SOQ process to “fill the gaps” so that more out-of-the-money SPX Options were forced into the 8:30 a.m. settlement calculation. *Id.* ¶ 117. More specifically, CBOE’s data indicated that on

settlement days, the *proportion* of SPX Options that were eligible for the VIX calculation was much higher at 8:30 a.m. than at 8:40 a.m., when the calculation was over. *Id.* ¶¶ 113-15. This proportion was also higher at 8:30 a.m. on settlement days than it was the day prior. *Id.* ¶ 116. In other words, a larger proportion of options had their two-zero gaps filled around the SOQ window. *Id.* ¶ 117.

Seventh, Plaintiffs ran a study that analyzed whether any randomly chosen SPX Option was or was not VIX-eligible at a given time, in light of the two-zero bid rule. *Id.* ¶ 118. Such a randomly chosen SPX Option is far more likely to be eligible around the SOQ window than at another time. *Id.* ¶ 119. Indeed, the *more weight* the SPX Option has in the formula, the *more likely* it is to be VIX-eligible. *Id.* ¶ 120. This too informed CBOE that market actors were taking advantage of flaws in its SOQ process. *Id.* ¶ 119.

Eighth, CBOE knew the VIX itself moved differently around settlement windows. *Id.* ¶¶ 121-23. The Complaint sets forth four different ways in which this is true, to a statistically significant degree. *Id.* ¶ 123. This informed CBOE that SPX Option prices on settlement days were being impacted by artificial and manipulative trading. *Id.* ¶ 124.

In sum, as the owner and operator of the SOQ process, with unlimited and near-exclusive access to the underlying trading and settlement data, CBOE knew its SOQ process was being manipulated to the advantage of certain of its specially selected SOQ participants at the expense of other investors. *Id.* ¶¶ 4, 78, 136, 225-28.

D. CBOE Nonetheless Continues, and Even Expands, its VIX Franchise

Despite this knowledge, CBOE continued to market and sell its proprietary products to unwitting investors. CBOE continued to encourage investors to invest in VIX Options and VIX Futures, assuring them that they “help you turn volatility to your advantage” and “give you the opportunity to protect against or capitalize on volatility to stay ahead of where the market is

going.” Complaint ¶¶ 66-67. Rather than disclose the consistent manipulation of the SOQ process—or alter the SOQ process to prevent it—CBOE in 2015 instead quadrupled its offerings of these products, adding weekly expirations to its existing lineup of monthly VIX Options and VIX Futures. *Id.* ¶ 68. While creating new markets for products whose settlement values it knew were being manipulated, CBOE misleadingly told investors that the new “addition of weekly expirations . . . offers volatility exposures that more precisely track the performance of the VIX Index.” *Id.* ¶ 69.

CBOE also continued to calculate and publish manipulated settlement values. *Id.* ¶¶ 135-37. By publishing these values, CBOE directly impacted whether and how much Plaintiffs and class members would be paid. *Id.* ¶¶ 198-201.

Plaintiffs and other class members relied on the fairness of the market for CBOE’s proprietary VIX-related products, and believed the prices at which they bought, sold, and settled were determined by natural market forces of supply and demand. *Id.* ¶ 195. As a result, they poured billions of dollars into the rigged markets CBOE created. *Id.* ¶¶ 196, 198-201. Indeed, between 2007 and 2017, CBOE saw a 3,000% increase in daily VIX Options transactions and over a 15,000% increase in VIX Futures transactions, *id.* ¶ 3, and the market for SPX Options, VIX Options, and VIX Futures ballooned from just over \$200 billion to \$1.6 trillion, *id.* ¶ 153. CBOE’s 88% rise in “transaction fees” has occurred “primarily” because of trading in these “home run” proprietary products, which provide its highest margin. *Id.* ¶¶ 3, 146.

As CBOE explained in its 2016 Annual Report:

In 2016, approximately 88.2% of our transaction fees were generated by our futures and index options, the overwhelming majority of which were generated by our exclusively-licensed products and products based on the VIX methodology. The bulk of this revenue is attributable to our S&P 500 Index options and VIX Index options and futures. As a result, our operating revenues are dependent in

large part on the exclusive licenses we hold for these products and our ability to maintain our exclusive VIX methodology.

Id. ¶ 156; *see also id.* ¶¶ 150 (proprietary products important in face of competition), 152. SPX Options, VIX Options, and VIX Futures have become “cash cows,” collectively generating over \$400 million in annual revenue for CBOE, and consistently representing about half of its total annual revenues. *Id.* ¶¶ 153-54. CBOE’s extraordinary revenue growth from its manipulated VIX products has also translated into massive financial gains for its directors and officers, who collectively hold over two million shares of CBOE common stock. *Id.* ¶ 157. CBOE’s stock price increased over 300% during the class period. *Id.*

E. The VIX Manipulation Is Exposed

On February 12, 2018, a whistleblower sent a letter to the SEC and the CFTC that referred to “pervasive flaw[s]” and a lack of “any safeguards,” and concluded that the VIX was “highly subject to manipulation.” Complaint ¶ 90.⁵ On February 13, 2018, it was reported that FINRA was investigating manipulation of the VIX. *Id.* ¶ 125. On February 14, 2018, former CFTC Commissioner Bart Chilton stated that the allegation that the VIX was manipulated “rings true to me” and that there is “certainly enough smoke.” *Id.* ¶ 9. Former SEC chairman Harvey Pitt echoed that “it’s quite clear that [the VIX] indexes’ options can be manipulated . . . The Cboe . . . should have sprung into action.” *Id.*

As demonstrated above, numerous analyses of the data prior to February 13, 2018, show that the VIX settlement values were being manipulated. These suspicious behaviors diminished when the regulatory spotlight started shining on CBOE and the VIX. For example:

⁵ CBOE observes that the whistleblower letter focuses on the intraday VIX figure itself, rather than the VIX SOQ calculation. MTD at 59. But the calculation processes are similar, even if not identical. *See, e.g.*, Complaint ¶ 55. And more generally, the point that the VIX franchise overall may be flawed in other ways, too, does not undermine Plaintiffs’ claims here.

- The trading volume difference between settlement Wednesdays and other days shrank. *Id.* ¶¶ 126-27.
- The trading volume difference between settlement Wednesdays and the day prior to each settlement also shrank. *Id.* ¶ 128.
- There was no longer a statistically significant difference between the trading volume on settlement Wednesdays and non-settlement Wednesdays for the most out-of-the-money SPX Options. *Id.* ¶ 129.
- There was no longer a statistically significant difference between the proportion of VIX-eligible options at 8:30 a.m. as opposed to 8:40 a.m. on settlement Wednesdays. *Id.* ¶ 131.
- There was no longer a statistically significant difference between the proportion of VIX-eligible options at 8:30 a.m. on settlement Wednesdays as opposed to 8:30 a.m. on the day prior. *Id.* ¶ 132.

These changes in the data provide additional corroborating evidence that the observed patterns were not the result of innocent behavior but, rather, were indicative of manipulation. *Id.* ¶¶ 125, 134.

ARGUMENT

I. PLAINTIFFS PLAUSIBLY PLEAD THAT THE FLAWS IN CBOE'S VIX FRANCHISE WERE ROUTINELY EXPLOITED

CBOE appends a few pages to the end of its memorandum in a half-hearted attempt to argue that the Complaint fails to plausibly allege that the flaws in its VIX franchise were ever actually exploited. Dkt. No. 185 (“MTD”) at 56-60. But the Complaint shows otherwise. For the reasons set forth below, the well-pled facts in the Complaint demonstrate that the VIX SOQ process was manipulated throughout the class period.⁶

First, contrary to CBOE’s implication, MTD at 22-23, 57, there is nothing wrong with presenting “aggregate” analyses that identify patterns of manipulation in the data, as Plaintiffs’

⁶ CBOE’s attempt to introduce into the record third parties’ views of the likelihood of manipulation, MTD at 29 & n.13, is improper. *See* note 29 below.

various economic analyses do. Doing so avoids charges that only ‘outliers’ are being presented. Indeed, courts have frequently refused to dismiss complaints incorporating economic analyses that involved averages across multi-year class periods. Notably, these cases upheld claims for entire class periods, even where the public data was not uniform across every day at issue.

For instance, in *In re Commodity Exchange, Inc. Gold Futures and Options Trading Litigation*, 213 F. Supp. 3d 631, 645 (S.D.N.Y. 2016), 60-75% of the approximately 1,700 benchmark settings at issue showed public signs of being set at artificial price levels, but the claims were upheld for a multi-year period.⁷ In this case, the allegation of consistent manipulation is even more powerfully supported, as virtually all of the settlements prior to the February 2018 break were flagged as anomalous by Plaintiffs’ analyses. This also addresses CBOE’s argument that Plaintiffs supposedly fail to specify *which* settlement days were subject to manipulation. MTD at 57. Plaintiffs do, by alleging that manipulation was “routine,” “systemic,” and “systematic.” *See, e.g.*, Complaint ¶¶ 10, 73, 91, 172, 177, 209, 249. In other words, the Complaint plausibly alleges that *all* of the monthly (later, weekly) SOQ processes were corrupted.⁸

Second, CBOE posits that Plaintiffs “rely heavily” on the academic work of Professor John M. Griffin and Mr. Amin Shams. MTD at 57. To the contrary, all of the analyses outlined above were designed and conducted by Plaintiffs, using data obtained by Plaintiffs. Indeed,

⁷ *See also, e.g., In re London Silver Fixing, Ltd., Antitrust Litig.*, 213 F. Supp. 3d 530, 561-62 (S.D.N.Y. 2016); *Alaska Elec. Pension Fund v. Bank of Am. Corp.*, 175 F. Supp. 3d 44, 55 (S.D.N.Y. 2016).

⁸ In some cases, such as those cited above, the plaintiffs’ complaint included an “appendix” listing days flagged by the economic analyses detailed in the complaint. Such appendices were for a subset of the days actually at issue in the case, but the multi-year claims were allowed in full. Here, Plaintiffs did not include a list of the settlement days flagged by the analyses because it would have been surplusage given the extent of the manipulation detected prior to February 2018. Plaintiffs can amend to include such an appendix, listing all but a few settlement days prior to the break, if the Court nonetheless finds it necessary.

many of Plaintiffs' analyses do not appear *at all* in the Griffin and Shams paper. For instance, the paper did not analyze the ratio of puts to calls; did not directly compare SPX Options volume on settlement days against prior days or non-settlement Wednesdays; did not study the proportion of "VIX-eligible" SPX Options as among all those being traded; did not assess the likelihood of a given SPX Options series being "VIX-eligible"; and did not find a "break" in any of the analyzed patterns. That the analyses in Plaintiffs' Complaint and in the paper sometimes concern the same topics is to be expected given they are studying the same subject matter. But even where this is the case, Plaintiffs' analyses are more robust.⁹

Third, CBOE tries in various ways to attack the Griffin and Shams paper, including casting it as focusing only "on high trading *volumes* on trading days." MTD at 57. As an initial matter, CBOE is engaging in sleight of hand by attacking an academic paper rather than the Complaint. CBOE thus ignores that Plaintiffs performed four unique studies that found there were abnormal *price* movements (as opposed to just changes in volumes) around the SOQ process. Complaint ¶¶ 121-24.¹⁰ And CBOE ignores that Plaintiffs do not allege merely that there was an increase in trading volume *generally*, a criticism CBOE levels at the paper. MTD at 57. Rather, the Complaint also details how the volume spikes were driven by increased activity in the exact types of SPX Options that are the most powerful tool for manipulation: puts (Complaint ¶¶ 92-94), expiring in 30 days (*id.* ¶¶ 109-11), that got further and further out of the money (*id.* ¶¶ 99-105), and had wider gaps in their consecutive strike prices (*id.* ¶¶ 106-08).

⁹ For instance, only Plaintiffs statistically analyzed the correlation between moneyness/volume and strike-price-gap/volume for every settlement day individually. Plaintiffs also studied multiple datasets, some of which went all the way back to 2004, whereas the paper covered only the time-period between January 2008 and April 2015.

¹⁰ CBOE is also wrong to suggest that the Griffin and Shams paper "does not analyze the effect of [high SPX trading] volumes on SPX options *prices*." MTD at 57. The paper does so at length. *See* John M. Griffin and Amin Shams, *Manipulation in the VIX?*, at 25-26 (May 23, 2017), <https://ssrn.com/abstract=2972979>.

Moreover, the Complaint uniquely shows how many of these patterns (volumetric and otherwise) abated after FINRA began investigating the VIX. *Id.* ¶¶ 125-34.

CBOE also notes that Griffin and Shams state they could “not fully rule out all potential explanations.” MTD at 57. But the paper did rule out *many* alternative explanations, Complaint ¶ 89, and concluded that “[t]he most natural explanation for these patterns appears to be attempted manipulation.”¹¹ More to the point, it is not Plaintiffs’ pleading burden to “fully rule out all potential explanations.” MTD at 57. Plaintiffs’ burden is to plead a plausible claim. Courts have repeatedly held that it is improper to dismiss a data-driven complaint by hypothesizing innocent behaviors that *might* provide an alternative explanation for certain anomalies.¹²

Though thus irrelevant at this procedural stage, notably, CBOE’s preferred “strategy order” explanation, MTD at 57-58, is also substantively unavailing. CBOE tries (but fails) to use strategy orders to explain some of the data anomalies, yet is silent as to many others. For instance, that traders may have wanted or needed to roll over expiring VIX positions by purchasing out-of-the-money VIX Options does not explain: (a) why trading volume increases *more* as the options get *more and more* out of the money, Complaint ¶¶ 99-105; (b) why this phenomenon is present in *put* options (the better tool for manipulation), but not calls, *id.* ¶¶ 100, 103; (c) why the volume increase is concentrated in those put options with wider gaps between

¹¹ Griffin & Shams, at 5.

¹² *See Alaska Elec.*, 175 F. Supp. 3d at 55-56 (rejecting defendants’ “plausible non-collusive explanations for many of the facts alleged in the Amended Complaint” because “[t]he choice between two plausible inferences . . . is not a choice to be made by the court on a Rule 12(b)(6) motion”); *In re Commodity Exch.*, 213 F. Supp. 3d at 665; *see also generally, e.g., Anderson News, LLC v. Am. Media, Inc.*, 680 F.3d 162, 184 (2d Cir. 2012) (choice between alternative explanations “is one for the factfinder”); *In re Broiler Chicken Antitrust Litig.*, 290 F. Supp. 3d 772, 801 (N.D. Ill. 2017) (same).

consecutive strike prices, *id.* ¶¶ 106-08; nor (d) why the data show the unique ways in which the two-zero gap rule is circumvented only around the settlement window, *id.* ¶¶ 113-20.

Of the many things “strategy orders” cannot explain, perhaps most notable is (e) the fact that the behavioral patterns changed as soon as FINRA began investigating. *Id.* ¶¶ 125-34. Traders would sensibly ease up on illegal manipulation after FINRA got involved, out of an increased fear of getting caught. By contrast, traders would have *no* reason to ease up on “strategy orders” that are “expressly contemplate[d]” by CBOE’s rules as “normal and legitimate trading behavior.” MTD at 58. The break thus confirms that the observed data patterns are indicative of manipulation, and not the result of the innocent use of strategy orders.

Finally, CBOE finds it “striking” the Complaint does not present corroborating evidence by way of direct witnesses to the wrongdoing. MTD at 58-59. But this is the pleading stage. No discovery has been allowed, and Plaintiffs’ burden is merely to plead a plausible claim. As discussed above, courts have repeatedly recognized that statistical analyses like those here give rise to plausibly pled claims, even without the type of evidentiary “corroboration” CBOE calls for. For instance, the antitrust claim in *In re Commodity Exchange* was upheld, even though “Plaintiffs [had] no direct evidence” of conspiratorial communications. 213 F. 3d Supp. at 666-67. *See also generally, e.g., Tellabs, Inc. v. Makor Issues & Rights, Ltd.*, 551 U.S. 308, 324 (2007) (“smoking gun” not required at pleading stage, even under “strong inference” scienter standard).¹³

¹³ CBOE argues that the existence of manipulation is not well-pled because the Doe Defendants have not been named. MTD at 56. But it fails to explain why such identification is relevant to the question of whether Plaintiffs have adequately pled that manipulation took place. CBOE similarly asserts that the claims against the Doe Defendants are not well-pled because scienter is not well-pled. But CBOE does not explain why a challenge to the scienter allegations against not-yet-named defendants is relevant to CBOE’s own motion. Even so, it should be noted that the acts pled here—among other things, filling gaps to force a formula to go deeper into out-of-the-money options—are sufficient to show scienter because one simply does not accidentally engage in such a complex strategy, as numerous courts have

II. PLAINTIFFS ADEQUATELY PLEAD SECURITIES EXCHANGE ACT CLAIMS

While purporting to argue that the Complaint fails to state a claim, CBOE does not even mention the requisite standard for pleading the claims that Plaintiffs actually bring, which arise under Rule 10b-5(a) and (c). Section 10(b) makes it unlawful for “any person, *directly or indirectly* . . . [t]o use or employ, in connection with the purchase or sale of any security[,]. . . *any manipulative or deceptive device* or contrivance in contravention of . . . rules and regulations” promulgated by the SEC. 15 U.S.C. § 78j(b). Subsections (a) and (c) of Rule 10b-5 forbid any person from employing “*any device, scheme, or artifice to defraud*” or engaging in “*any act, practice, or course of business which operates or would operate as a fraud or deceit upon any person.*” 17 C.F.R. § 240.10b-5(a), (c).

These subsections thus provide a “distinct cause of action” for market manipulation that “does not require ‘the making of an untrue statement of material fact or omission to state a material fact.’” *CompuDyne Corp. v. Shane*, 453 F. Supp. 2d 807, 821 (S.D.N.Y. 2006); *see also CP Stone Fort Holdings, LLC v. Doe(s)*, 2017 WL 1093166, at *3-4 (N.D. Ill. Mar. 22, 2017) (“*CP Stone II*”). “The gravamen of [a manipulation] claim is the ‘deception of investors into believing that prices at which they purchase and sell securities are determined by the natural interplay of supply and demand, not rigged by manipulators.’” *City of Providence v. Bats Glob. Mkts., Inc.*, 878 F.3d 36, 49 (2d Cir. 2017).

To state a claim under Rule 10b-5(a) and (c), a plaintiff must allege that “(1) the plaintiff was injured (2) in connection with the purchase or sale of securities (3) by relying on an assumption of an efficient market free of manipulation (4) where the defendant committed a deceptive or manipulative act (5) with scienter (6) that controlled or artificially affected the

recognized. *See generally, e.g., CP Stone Fort Holdings, LLC v. Doe(s)*, 2016 WL 5934096, at *5 (N.D. Ill. Oct. 11, 2016) (“*CP Stone I*”) (features of transactions themselves can give rise to inference of manipulative intent); *SEC v. Masri*, 523 F. Supp. 2d 361, 368-72 (S.D.N.Y. 2007) (same).

securities market.” *In re Galena Biopharma, Inc. Sec. Litig.*, 117 F. Supp. 3d 1145, 1192-93 (D. Or. 2015); *see CP Stone II*, 2017 WL 1093166, at *3.

A. Plaintiffs Plausibly Plead CBOE’s Deceptive and Manipulative Conduct

1. CBOE engaged in deceptive and manipulative conduct

“Because the PSLRA sets no special pleading requirements for market manipulation claims, the ‘deceptive or manipulative conduct’ in a market manipulation claim need only be pled under Rule 9(b).” *In re Initial Pub. Offering Sec. Litig.*, 241 F. Supp. 2d 281, 385-86 (S.D.N.Y. 2003) (“*IPO*”). Pleading “deceptive or manipulative conduct” in a Rule 10b-5(a) and (c) case requires Plaintiffs only to allege, “to the extent possible, what manipulative acts were performed, which defendants performed them, when the manipulative acts were performed, and what effect the scheme had on the market for the securities at issue.” *City of Providence*, 878 F.3d at 48. “This standard meets the goals of Rule 9(b) while also considering which specific facts a plaintiff alleging manipulation can realistically plead at this stage of the litigation.” *ATSI Comm., Inc. v. Shaar Fund, Ltd.*, 493 F.3d 87, 102 (2d Cir. 2007).¹⁴

CBOE designed and sold a suite of VIX-related proprietary products, Complaint ¶¶ 44, 54, and exercised complete control over all aspects of those products, *id.* ¶¶ 2, 43-44, 135, 151. CBOE also designed its own internal settlement process, the SOQ, through which CBOE determined what cash payouts investors would receive. *Id.* ¶¶ 5-6. As the owner and administrator of the SOQ, CBOE alone determined which traders were permitted to participate in the SOQ, and was uniquely positioned to exert further influence over that process by incentivizing trading in certain instruments, like SPX Options. *Id.* ¶¶ 58, 60-62.

¹⁴ *See also SEC v. Santos*, 355 F. Supp. 2d 917, 921 (N.D. Ill. 2003) (“[W]hen information giving rise to securities fraud is exclusively held by defendants, the particularity requirement of Rule 9(b) is relaxed.”).

Plaintiffs allege CBOE also knew that multiple features of the SOQ made it particularly vulnerable to manipulation. *Id.* ¶¶ 57, 74, 76-78, 82-87. In fact, CBOE knew that the SOQ process was consistently being rigged by the Doe Defendants throughout the class period. *See* Sections I above and II.B below. Nevertheless, CBOE continued to sell its proprietary VIX-related products, grant special privileges to certain market participants, publish settlement values it knew were artificial, and solicit business deceptively for its VIX franchise by assuring investors of the VIX franchise’s reliability.¹⁵ *Id.* ¶¶ 11, 68, 78, 135, 227. Plaintiffs have thus sufficiently alleged *what* deceptive and manipulative acts are at issue, *who* performed them,¹⁶ and *when*.

Plaintiffs also allege the profound *effect on the market* from CBOE’s deceptive and manipulative acts. *Id.* ¶¶ 198-201. Class members invested billions of dollars in VIX-related products, based on their belief that the prices at which they bought, sold, and settled those products were determined by natural market forces of supply and demand. *Id.* ¶ 195. Unbeknownst to these investors, CBOE created a rigged SOQ process that allowed certain investors to game the system at the expense of others. *Id.* The end result was that Plaintiffs and class members were forced to pay more (or accept less) for their VIX products than they would have in a fair and orderly market. *Id.* ¶¶ 198-201.

Courts regularly find similar allegations sufficient to plead Rule 10b-5 market manipulation claims. For example, in *City of Providence*, plaintiffs alleged that the defendant

¹⁵ CBOE argues that statements about its VIX franchise were not misleading, or were nonactionable “puffery.” MTD at 20-21. Again, this is not a misstatements case, but it should nonetheless be noted that it is misleading to allow *routine* manipulation, even if there was no express warrant that the market was *completely* “free of manipulation.” Indeed, the purpose of the federal securities laws is “to [e]nsure honest securities markets and thereby promote investor confidence.” *SEC v. Zandford*, 535 U.S. 813, 819 (2002).

¹⁶ Plaintiffs acknowledge that CBOE Futures is not a defendant to Count One. However, CBOE Global is, as the head entity responsible for the VIX franchise. *See generally* Section III.E below (discussing cases involving corporate affiliates).

exchanges created and sold products knowing they would be used by certain traders to gain advantages over others. 878 F.3d at 40. In reversing the district court’s dismissal of plaintiffs’ Rule 10b-5(a) and (c) claims, the Second Circuit explained that “plaintiffs have sufficiently alleged that the exchanges engaged in conduct that manipulated market activity, including by deceiving investors into ‘believing that prices at which they purchase[d] and s[old] securities are determined by the natural interplay of supply and demand, not rigged by manipulators.’” *Id.* at 50. The court reasoned that “permitting such a case to proceed would be consistent with the ‘fundamental purpose of the [Exchange] Act . . . of [ensuring] full disclosure,’” and held that “[t]he complaint sufficiently alleges conduct that ‘can be fairly viewed as ‘manipulative or deceptive’ within the meaning of the [Exchange Act].” *Id.* at 49.¹⁷

2. *CBOE’s attempts to shoehorn Plaintiffs’ claims into Rule 10b-5(b) fail*

Rather than deal with the merits of Plaintiffs’ actual claims, CBOE spends pages arguing that Plaintiffs’ manipulation claims are really just “repackag[ed]” faulty “misrepresentation” and “omission” claims. MTD at 2, 19-27. To the contrary, as discussed in Section II.A.1 above, Plaintiffs have detailed how CBOE’s deceptive and manipulative conduct went far beyond making a particular marketing statement. It is not surprising, let alone dispositive, that *part* of that story involves false statements, as manipulative conduct and omissions typically go hand-in-hand: “nondisclosure is usually essential to the success of a manipulative scheme.” *Santa Fe Indus. v. Green*, 430 U.S. 462, 477 (1977); *see also Dodona I, LLC v. Goldman, Sachs & Co.*,

¹⁷ *See also Sharette v. Credit Suisse Int’l*, 127 F. Supp. 3d 60, 85-86 (S.D.N.Y. 2015) (sustaining market manipulation claims where plaintiffs alleged that underwriter defendants “knew in advance of the Offerings how hedge funds planned to exploit [those offerings]” and then structured the offerings in a manner that enabled the hedge funds to do so at the expense of other investors); *Dodona I, LLC v. Goldman, Sachs & Co.*, 847 F. Supp. 2d 624, 650 (S.D.N.Y. 2012) (“the act of structuring, offering, and selling [certain securities] was itself a manipulative market activity” where defendants did so “with the belief that [those] securities would not be profitable for investors”).

847 F. Supp. 2d 624, 650 (S.D.N.Y. 2012) (“[F]or market activity to be manipulative, that conduct must involve misrepresentation or nondisclosure.”).

CBOE nonetheless argues that courts are free to recast Rule 10b-5(a) and (c) claims as Rule 10b-5(b) claims if they reach some unidentified threshold at which the presence of false statements purportedly trumps the existence of a larger device and scheme. MTD at 26-27. But the cases CBOE cites say no such thing: they deal with fact patterns where the *only* fraudulent conduct at issue was misleading statements or omissions.¹⁸ Indeed, those courts recognized that “[a] defendant may . . . be liable as part of a fraudulent scheme based upon misrepresentations and omissions under Rules 10b-5(a) or (c) when the scheme also encompasses conduct beyond those misrepresentations or omissions,” as does the scheme alleged by Plaintiffs in this case. *WPP Luxembourg Gamma Three Sarl v. Spot Runner, Inc.*, 655 F.3d 1039, 1057 (9th Cir. 2011); *see also SEC v. ITT Educ. Servs.*, 303 F. Supp. 3d 746, 765-66 (S.D. Ind. 2018) (sustaining scheme claims where SEC alleged “deceptive acts”—in particular, “misleading auditors” by withholding information—along with misstatements or omissions); *IBEW Local 90 Pension Fund v. Deutsche Bank AG*, 2013 WL 1223844, at *8 (S.D.N.Y. Mar. 27, 2013) (misstatements or omissions “may simply be part of the fabric of the fraudulent scheme alleged”).¹⁹

¹⁸ *See Public Pension Fund Grp. v. KV Pharm. Co.*, 679 F.3d 972, 987 (8th Cir. 2012) (claims based solely on misrepresentations in compliance and earnings statements); *Lentell v. Merrill Lynch & Co.*, 396 F.3d 161, 177 (2d Cir. 2005) (the “sole basis” for liability was false statements in research reports).

¹⁹ *Accord SEC v. Sells*, 2012 WL 3242551, at *7 (N.D. Cal. Aug. 10, 2012) (sustaining Rule 10b-5(a) & (c) claims because “[a]lthough the purpose of Defendants’ improper actions may have been to increase Hansen’s sales and income figures, which they knew would be reported to the public, their allegedly deceptive acts amount to more than making a false statement”); *SEC v. Mercury Interactive, LLC*, 2011 WL 5871020, at *2 (N.D. Cal. Nov. 22, 2011) (“the backdating scheme alleged by the SEC encompasses enough conduct beyond the concealment of the compensation expenses to state a viable claim of scheme liability”).

3. CBOE is liable as a primary violator

CBOE misses the mark by contending that it cannot be liable because “Plaintiffs do not allege that Cboe Options engaged in manipulative trading.” MTD at 26. Liability under Rule 10b-5(a) or (c) does not require that CBOE itself engaged in manipulative trades. *See, e.g., In re Global Crossing, Ltd. Sec. Litig.*, 322 F. Supp. 2d 319, 336 (S.D.N.Y. 2004) (“market manipulation” encompasses not only “illegal trading activity” but also “any device, scheme or artifice” or “any act, practice, or course of business” used to perpetrate a fraud). As the court stated in *City of Providence*:

The exchanges do not cite, and we are not aware of, any authority explicitly stating that such a claim must concern a defendant’s trading activity. Instead, §10(b) and Rule 10b-5 prohibit “all fraudulent schemes in connection with the purchase or sale of securities,” including schemes that consist of manipulative or deceptive “market activity.”

878 F.3d at 50; *see Santa Fe*, 430 U.S. at 476-77 (manipulation claims are intended to “prohibit the full range of ingenious devices that might be used to manipulate securities prices”).²⁰ Indeed, deceptive devices are routinely found to have been deployed by defendants who did not themselves actually engage in manipulative trading. *See, e.g., Sharette v. Credit Suisse Int’l*, 127 F. Supp. 3d 60, 84-85 (S.D.N.Y. 2015); *Dodona I*, 847 F. Supp. 2d at 650.

CBOE extends the same argument by observing that “there is no aiding-and-abetting liability under § 10(b).” MTD at 26. This is of course true as a general observation. But it overlooks that “[a] defendant may be liable under a scheme claim even if that defendant is

²⁰ For this same reason, CBOE’s attempt to cabin Rule 10b-5 manipulation claims to those involving “wash sales, matched orders, or rigged prices” fails. MTD at 26. In fact, although this “general” definition is often cited by defendants in trying to circumscribe manipulation claims to a narrow set of conduct, “the scope of deceptive devices or schemes prohibited by subsections (a) and (c) is quite extensive.” *In re ZZZZ Best Sec. Litig.*, 864 F. Supp. 960, 971 (C.D. Cal. 1994); *see also Affiliated Ute Citizens of Utah v. United States*, 406 U.S. 128, 151 (1972) (“Congress intended securities legislation enacted for the purpose of avoiding frauds to be construed ‘not technically and restrictively, but flexibly to effectuate its remedial purposes.’”).

merely following orders or the scheme is masterminded by someone else.” *Galena*, 117 F. Supp. 3d at 1197. And it ignores that Plaintiffs allege that CBOE *was* a primary actor. It was CBOE who created, maintained, marketed, and expanded its flawed VIX franchise, profiting handsomely in the process. As the *City of Providence* court explained in rejecting similar “aider and abettor” arguments:

[P]laintiffs do not assert that the exchanges simply facilitated manipulative conduct by the HFT firms. Instead, the plaintiffs contend that the exchanges were co-participants with HFT firms in the manipulative scheme and profited by that scheme. The exchanges sold products and services during the class period that favored HFT firms and, in return, the exchanges received hundreds of millions of dollars in payments for those products and services.

878 F.3d at 51.²¹

B. Plaintiffs Plead a Strong Inference of CBOE’s Scienter

A complaint sufficiently pleads scienter when it alleges facts showing actual knowledge or strong circumstantial evidence of conscious misbehavior or recklessness. *See Makor Issues & Rights, Ltd. v. Tellabs Inc.*, 513 F.3d 702, 704 (7th Cir. 2008) (“*Tellabs II*”). In assessing scienter, the Court must examine “whether *all* of the facts alleged, taken collectively, give rise to a strong inference of scienter, not whether any individual allegation, scrutinized in isolation, meets that standard.” *Tellabs*, 551 U.S. at 322-23. Plaintiffs’ inference “need not be irrefutable, i.e., of the ‘smoking-gun’ genre, or even ‘the most plausible of competing inferences.’” *Id.* at 324. “In sum, the reviewing court must ask: When the allegations are accepted as true and taken

²¹ The cases cited by CBOE here are inapposite. MTD at 26-27. In *Central Bank of Denver, N.A. v. First Interstate Bank of Denver, N.A.*, the respondents “concede[d] that Central Bank did not commit a manipulative or deceptive act within the meaning of §10(b).” 511 U.S. 164, 191 (1994). And *Stoneridge Investment Partners v. Scientific-Atlanta* actually reaffirmed that a party can be liable even in the absence of outright statements, because “[c]onduct itself can be deceptive.” 552 U.S. 148, 158-59 (2008). The Supreme Court ruled against the plaintiffs there because “respondents’ acts or statements were not relied upon by the investors.” *Id.* at 159.

collectively, would a reasonable person deem the inference of scienter at least as strong as any opposing inference?” *Id.* at 326.

1. *The Complaint alleges CBOE knew that the flaws in its VIX franchise were routinely abused*

CBOE asserts the Complaint merely shows that “CBOE, in good faith, failed to detect any manipulation.” MTD at 2, 34, 55-56. To the contrary, Plaintiffs directly allege that CBOE acted with scienter. Complaint ¶¶ 4, 10-11, 78, 87, 95, 98, 111, 136-38. Those allegations are supported by all the facts discussed herein. For instance, CBOE oversaw *every* settlement and had complete and exclusive access to *all* relevant data, which CBOE has admitted it reviewed to “actively surveil[] for potential VIX settlement manipulation.” *Id.* ¶¶ 136, 139-45. The Complaint details how even the *public* data show numerous signs of manipulation, and thus confirms that CBOE’s far more granular, *private* data gave it even greater knowledge. *See* Factual Background Section C above.

Given the sheer amount of data indicating manipulation, the consistency with which manipulation took place, CBOE’s near exclusive access and constant monitoring of that same data, CBOE’s mastery of its franchise, and CBOE’s history of prioritizing its business interests,²² the most compelling inference is not that CBOE in good faith failed to detect the wrongdoing. It is that CBOE knew that its SOQ process was being manipulated. *See Sharette*, 127 F. Supp. 3d at 100-01 (allegations that underwriter designed and structured stock offering in a way that

²² *See* Complaint ¶¶ 159-64. CBOE attempts to wave away the fact that the SEC, in the middle of the class period, fined CBOE millions of dollars for putting its business interests ahead of its regulatory obligations. MTD at 33. But that CBOE was fined for previously giving precedence to its business interest is, as a matter of common sense, a valid part of the total mix of facts before the Court. *See generally, e.g., Twombly*, 550 U.S. at 563 (claims “may be supported by showing *any set of facts*”) (emphasis added). The case cited by CBOE, *Pension Trust Fund for Operating Engineers v. Kohl’s Corp.*, 895 F.3d 933 (7th Cir. 2018), is inapposite. There, the “strongest evidence” of scienter with respect to accounting errors was that supposedly similar errors were made in prior years. *Id.* at 939. But the court found that the errors were actually “quite different” and thus were insufficient. *Id.* Here, the SEC’s findings are being validly used to buttress a much larger showing of CBOE’s scienter.

allowed hedge funds to short the stock, that underwriter communicated with its hedge fund clients prior to the offering, and that short selling behavior actually occurred showed intentional misbehavior or recklessness); *Dodona I*, 847 F. Supp. 2d at 646 (allegations that bank structured, marketed, and sold collateralized debt obligations that it knew were backed by nonperforming assets “g[a]ve[] rise to a strong inference of scienter”).

The conclusion that CBOE knew the SOQ process was being manipulated is buttressed by the Complaint’s allegations regarding the affirmative steps CBOE took. For instance, CBOE: (i) structured the SOQ to calculate the settlement value based on out-of-the-money SPX Options and within a short window of time, thereby reducing the cost and time necessary for a manipulator to influence the settlement value, Complaint, ¶¶ 56, 76-78; (ii) set up a two-zero bid system that was highly vulnerable to manipulation by “filling the gaps,” *id.* ¶¶ 51-52, 81-83, 112-20; (iii) restricted access to and kept anonymous the identities of all participants in the SOQ, making detection of those same manipulators nearly impossible for anyone other than CBOE, *id.* ¶¶ 60-61; (iv) removed a safeguard intended to prevent manipulation of the SOQ process—the Order Book Official, *id.* ¶ 57; and (v) exacerbated all these actions when it granted special privileges to select market participants that further enabled and encouraged those traders to engage in manipulation, *id.* ¶¶ 58, 60 n.14.

CBOE’s main argument attempts to distract from these facts, by contending that the Complaint fails to pin specific knowledge on a specific person who made a specific “challenged statement.” MTD at 27-29. But, as discussed above, Plaintiffs’ allegations of deception do not turn on any specific statement. Thus, any additional specificity requirements of the PSLRA that might attach to a misrepresentation claim do not apply here.²³ Indeed, CBOE does not direct the

²³ Courts have not required allegations of “specific conversations, names, or dates as to when or how exactly the scheme was engineered and carried out by [defendants alleged to have orchestrated the

Court to any authority applying the “specific person” requirement it proposes be used here. *Id.* To the contrary, the cases upon which CBOE relies make clear that in the Seventh Circuit, “it is possible to draw a strong inference of corporate scienter without being able to name the individuals who concocted and disseminated the fraud.” *Tellabs II*, 513 F.3d at 710; *Pugh v. Tribune Co.*, 521 F.3d 686, 697 n.5 (7th Cir. 2008).²⁴ CBOE admits this. *See* MTD at 28 n.12.

CBOE also argues that scienter cannot be inferred based on a theory that “any competent observer would detect manipulation,” given Plaintiffs allege they were themselves in the dark until recently. MTD at 29. But that *outside investors* could not have been reasonably expected to scour through the limited public data to try to uncover the fraud, says nothing of whether CBOE *as the ultimate insider* acted knowingly or recklessly. After all, it was CBOE that designed and controlled all the systems, that had data far beyond what is publicly available, and that had multiple committees to monitor the data.²⁵

In sum, given the obvious importance to investors that they receive accurate and legitimate settlement values, CBOE was reckless or worse when disregarding its own internal information. *See Tellabs II*, 513 F.3d at 704. Indeed, given the centrality of the VIX franchise to CBOE’s entire business model, if CBOE was in the dark, as it now claims, it is nonetheless liable because of its “egregious refusal to see the obvious, or to investigate the doubtful.” *Novak v. Kasaks*, 216 F.3d 300, 308 (2d Cir. 2000); *see In re Motorola Sec. Litig.*, 2004 WL 2032769, at

manipulative scheme]” because such “information [is] likely to be in the exclusive control of [defendants] at this stage of the proceedings.” *Sharette*, 127 F. Supp. 3d at 85; *see ATSI*, 493 F.3d at 102; *Santos*, 355 F. Supp. 2d at 921.

²⁴ *See also In re Parmalat Sec. Litig.*, 376 F. Supp. 2d 472, 506-07 (S.D.N.Y. 2005) (scienter pled against three corporate defendants based their knowledge and participation in and/or awareness of critical facts relating to alleged manipulation and deceptive devices).

²⁵ For the same reason, CBOE’s argument that it would have been “foolish” to engage in the alleged wrongdoing if it was so easily detectible, MTD at 32, is unavailing. Again, Plaintiffs do *not* allege it was easily detectible to *Plaintiffs* or other outsiders. Rather, Plaintiffs allege the problems were known to CBOE, the ultimate insider.

*26 (N.D. Ill. Sept. 9, 2004) (allegations that defendants “failed to check information they had a duty to monitor” establish recklessness).²⁶

2. *The Complaint alleges CBOE had the motive and opportunity*

Courts have long held that “[s]imple greed is a powerful motivator. . . . Personal profit, coupled with professional motives to hide internal weaknesses and paint a rosy picture of the [business] lend weight to . . . a cogent inference of scienter.” *Norfolk Cty. Ret. Sys. v. Ustian*, 2009 WL 2386156, at *10 (N.D. Ill. July 28, 2009). CBOE’s VIX franchise accounts for nearly half of CBOE’s total revenues. CBOE has repeatedly acknowledged the importance of its VIX franchise, and the resulting fees, to its profits and overall business model. See Factual Background Section D above.

CBOE characterizes these allegations as “generic,” and argues that they therefore do not show scienter. MTD at 31. But the cases CBOE cites stand for the unremarkable proposition that generalized motives common to all corporate executives to protect their own interests are not, without more, sufficient to charge a company with scienter.²⁷ In contrast, the Complaint here details the extreme importance of the VIX franchise to CBOE. Such allegations show CBOE’s “motivation to hide the magnitude, risks and nature of the [challenged activity].” *Roth v. Aon Corp.*, 2008 WL 656069, at *9 (N.D. Ill. Mar. 7, 2008); *see id.* at *5-6 (crediting scienter

²⁶ The allegations here are far more robust than those in the cases cited by CBOE, where plaintiffs relied *solely* on the fact that a fraud had gone undetected to claim an “inadequacy” of existing controls.” *See Pugh*, 521 F.3d at 694-95 (rejecting allegations based solely on hindsight that publishing company was reckless as to false circulation figures reported by its subsidiary); *Higginbotham v. Baxter Int’l, Inc.*, 495 F.3d 753, 759-60 (7th Cir. 2007) (same, as to false sales numbers reported by subsidiary to parent). Plaintiffs do not rely on a “hindsight” theory of inadequate controls. Rather, the Complaint alleges that CBOE was monitoring the data coming from products it designed and thus knew intimately, and that CBOE took additional affirmative steps to exacerbate the problems.

²⁷ *See Kohl’s*, 895 F.3d at 939-40 (allegations that executives had a “motive to pretend nothing was amiss,” “[w]ithout more,” do not show scienter); *Zucco Partners, LLC v. Digimarc Corp.*, 552 F.3d 981, 1005 (9th Cir. 2009) (“bare assertion” of a “pecuniary motive” by executives, without any factual explanation, do not establish recklessness).

allegations that arrangements central to alleged scheme “constituted such a material source of income for [corporate defendant] that their maintenance was crucial for the company’s continued revenue growth”).²⁸

CBOE offers the counterfactual that the importance of its VIX franchise would have led it to fix any problem it discovered. MTD at 2, 31-33, 49-50. CBOE goes so far as to debate a “cost-benefit calculus” of covering up the Doe Defendants’ manipulation. *Id.* at 31-32. But CBOE’s position presumes that there was a way to fix the SOQ process *without* diminishing the value of its “crown jewel” VIX franchise. It cannot be accepted, at the pleading stage, that CBOE could have pulled off such a feat.

For instance, to cut off the perks and special access that further empowered manipulation would threaten trading volume. Complaint ¶¶ 58, 60 & n.14, 62, 76-77. And there is the even-more fundamental issue that trading for VIX products far outstrips the volume of trading for out-of-the-money SPX Options. *See id.* ¶ 76. This makes the VIX products an inherently attractive target for manipulation given the ability to spend a little money in one instrument to make a lot more money on the higher-value instruments. *See id.* ¶ 74 (according to a former banker, “you could push around a large dollar value of futures by trading a small dollar value in options”).²⁹ Yet, moving away from *proprietary* SPX Options as the measurement device could have resulted

²⁸ *See also, e.g., Anschutz Corp. v. Merrill Lynch & Co. Inc.*, 785 F. Supp. 2d 799, 817 (N.D. Cal. 2011) (acknowledging desire to earn lucrative fees contributes to strong inference of scienter); *Sharette*, 127 F. Supp. 3d at 95-96 (sustaining allegations defendants employed alleged scheme to “strengthen [their] brand name in the lucrative . . . fee market” and “to improve [their] ability to access” that market”).

²⁹ CBOE’s attempt to inject into the record a different article that happens to have also been written by the same banker, MTD at 59 n.23, is improper. *See, e.g., Khoja v. Orexigen Therapeutics, Inc.*, 899 F.3d 988, 1003 (9th Cir. 2018) (“Submitting documents not mentioned in the complaint to create a defense is nothing more than another way of disputing the factual allegations in the complaint.”); *Steinbrecher v. Oswego Police Officer Dickey*, 138 F. Supp. 2d 1103, 1107 (N.D. Ill. 2001). Mr. Levine’s statement quoted in the Complaint is in no way shown to be misleading by CBOE’s preferred “context” of his distinct discussion about hedging activities as they relate to the public data.

in CBOE losing its effective monopoly profits. The implausibility of CBOE’s counterfactual—that it could have fixed the SOQ *while also* reaping the same extraordinary profits—is confirmed by the fact that CBOE’s stock plummeted last year when it admitted it was struggling to quell concerns with problems in the VIX. *Id.* ¶¶ 148-158, 170.

In any event, the Complaint should not be dismissed because CBOE hypothesizes some other inference to be drawn from its profit motive: “while the competing explanations regarding scienter . . . could be useful to the trier of fact, they are insufficient in this case to justify dismissal for failure to state a claim on which relief can be granted.” *AnchorBank*, 649 F.3d at 617. For example, in *Gosselin v. First Trust Advisors L.P.*, Judge Der-Yeghiayan rejected the defendant investment funds’ attempt to discredit the plaintiffs’ allegation that the funds were motivated to artificially inflate the value of their underperforming assets because the funds sought to receive more fees and appear more profitable. 2009 WL 5064295, at *6 (N.D. Ill. Dec. 17, 2009). The funds argued that those motive allegations were “economically irrational” because the funds would have made more profits by selling off the assets. *Id.* As the court explained:

[A]n analysis of the merits of Plaintiffs’ allegations is not an issue to be resolved at the pleadings stage. . . . Defendants, in fact, ask the court to engage in an analysis of the merits of Plaintiffs’ position, arguing that “[t]he inference that Defendants acted in good faith is significantly more compelling.” However, at the pleading stage, it is Plaintiffs, the non-movants, that are entitled to have facts construed in their favor. Additionally, it is premature to make an assessment regarding the merits of the allegations.

Id. Thus, the Court should reject CBOE’s argument based on its self-serving purported cost-benefit analysis of its wrongdoing.

C. Plaintiffs Plausibly Plead Reliance

CBOE next argues that Plaintiffs do not sufficiently allege reliance because Plaintiffs assert that they relied on the integrity of the VIX SOQ process, as opposed to relying on a

particular “misstatement or omission.” MTD at 35. This argument stems from CBOE’s misplaced insistence that this is a misrepresentation case. Indeed, in a market manipulation case under Rule 10b-5(a) and (c), a plaintiff need only allege reliance on “an assumption of an efficient market free of manipulation.” *ATSI*, 493 F.3d at 101;³⁰ *see also Ploss v. Kraft Foods Grp., Inc.*, 197 F. Supp. 3d 1037, 1054 (N.D. Ill. 2016) (citing *ATSI* and explaining that “investors generally assume that they are trading on ‘an efficient market free of manipulation’”); *Anschutz Corp. v. Merrill Lynch & Co. Inc.*, 785 F. Supp. 2d 799, 815-16 (N.D. Cal. 2011) (same). Thus, Plaintiffs’ allegations here adequately plead reliance. *See* Complaint ¶¶ 135-37, 195-204, 229.

Though Plaintiffs satisfy the requirement for pleading reliance in a manipulation case, CBOE is wrong when it maintains that Plaintiffs cannot also avail themselves of the fraud-on-the-market presumption. “Although the fraud-on-the-market presumption was adopted in the context of misrepresentation claims, courts have uniformly held that the presumption is also applicable to market manipulation claims.” *In re Genesis Intermedia, Inc. Sec. Litig.*, 2007 WL 1953475, at *10 (C.D. Cal. June 28, 2007).

The holding in *CP Stone II* is also instructive. There, plaintiffs claimed defendants had manipulated the U.S. Treasury markets through deceptive trading activities in violation of Rule 10b-5(a) and (c). 2017 WL 1093166, at *1. As here, defendants moved to dismiss the complaint because plaintiffs had purportedly failed adequately to allege reliance. *Id.* at *4. The defendants argued the fraud on the market presumption applies only in misrepresentation cases under Rule 10b-5(b). *Id.* The court rejected defendants’ argument, holding plaintiffs could plead reliance

³⁰ The Second Circuit has made clear that it does “not read *ATSI*’s reference to ‘reliance on an assumption of an efficient market free of manipulation’ as referring to a liquid, efficient market with prices publicly reported in real time. We read *ATSI*’s reference to an ‘efficient’ market to mean only a bona fide market free of manipulation.” *Fezzani v. Bear, Stearns & Co. Inc.*, 716 F.3d 18, 23 (2d Cir. 2013).

for purposes of a Rule 10b-5(a) and (c) claim on a fraud on the market theory where “defendants’ deceptions were communicated to the investing public . . . thereby affecting the price of the security.” *Id.* at *5-6. That holding applies here because Plaintiffs plausibly allege the prices for the VIX instruments at issue would have been different absent the flawed settlement process. *See, e.g.*, Complaint ¶¶ 135, 195, 196.³¹

Although unnecessary, Plaintiffs satisfy the reliance element in yet another way—through the presumption associated with *Affiliated Ute Citizens of Utah v. United States*, 406 U.S. 128 (1972), which applies in cases involving a failure to disclose. Market manipulation “creates an independent duty to disclose,” and that “duty to disclose falls on all parties aware of the manipulation, or who take advantage of it.” *SEC v. Santos*, 355 F. Supp. 2d 917, 920 (N.D. Ill. 2003) (noting that “failure to disclose that market prices are being artificially depressed operates as a deceit on the market place and is an omission of material fact”); *IPO*, 241 F. Supp. 2d at 381-82 (noting that “participants in the securities market are entitled to presume that all of the actors are behaving legally; silence that conceals illegal activity is therefore intrinsically misleading.”); *see also In re Enron Corp. Sec. Derivative & “ERISA” Litig.*, 529 F. Supp. 2d 644, 739 (S.D. Tex. 2006) (same). Thus, CBOE is wrong in arguing that the *Ute* presumption is inapplicable because CBOE had no duty to disclose even if it “knew of systemic manipulation.” MTD at 23-25.

D. Plaintiffs Plausibly Plead Causation and Article III Standing

CBOE asserts that Plaintiffs’ Securities Exchange Act claims are not well-pled because Plaintiffs have not shown they were harmed by CBOE’s alleged misconduct. MTD at 36-38.

³¹ For the same reason, CBOE’s contention that “Plaintiffs have alleged no reason to believe that ‘the market’s’ belief about whether trading was or was not being manipulated was ‘priced in’” to what Plaintiffs paid for their VIX products fails. MTD at 36. Again, for instance, it is plain that manipulation of the SOQ process changed the amounts paid to and from Plaintiffs who held through cash-settlement.

But “Federal Rule of Civil Procedure 8(a)(2) governs a plaintiff’s allegations of loss causation.” *DH2, Inc. v. Athanassiades*, 404 F. Supp. 2d 1083, 1097 (N.D. Ill. 2005). Thus, “loss causation allegations ‘need only provide a defendant with some indication of the loss and the causal connection that the plaintiff has in mind.’” *In re Akorn, Inc. Sec. Litig.*, 240 F. Supp. 3d 802, 821 (N.D. Ill. 2017). The Article III injury-in-fact requirement poses a similarly “low threshold.” *John v. Whole Foods Mkt. Grp. Inc.*, 858 F.3d 732, 736 (2d Cir. 2017). Plaintiffs need only “construct a reasonable causality chain linking [their] injury to defendants’ actions,” *Kochert v. Greater Lafayette Health Servs.*, 463 F.3d 710, 714-15 (7th Cir. 2006), which may be based on “general factual allegations of injury,” *Whole Foods*, 858 F.3d at 736.³²

The Complaint more than clears these low thresholds. Plaintiffs allege that “SPX Options, VIX Options, VIX Futures and VIX ETPs were mispriced due to CBOE[’s] . . . manipulative conduct,” and that “[a]s a result, class members [were] forced to pay more (or to accept less) from these products than they would have” absent CBOE’s deceptive acts. Complaint ¶ 196. Plaintiffs further specify how CBOE caused harm to investors in each type of VIX-related security. *Id.* ¶¶ 198-200. For instance, “class members who held VIX Options and VIX Futures through to settlement were harmed” because CBOE determined and published the value at which those products cash-settled based entirely on its manipulated SOQ process. *Id.* ¶ 198. The Complaint also includes detailed allegations about the types of harmed instruments in which each Plaintiff transacted. *Id.* ¶¶ 15-25. More data is contained in Plaintiffs’ PSLRA certifications. *See* Dkt. Nos. 141-49. That the manipulation actually moved prices is confirmed

³² CBOE’s efforts to gin up causal uncertainty fly in the face of “[t]he most elementary conceptions of justice and public policy,” which “require that the wrongdoer shall bear the risk of the uncertainty which his own wrong has created.” *Bigelow v. RKO Radio Pictures*, 327 U.S. 251, 265 (1946); *see also J. Truett Payne Co. v. Chrysler Motors Corp.*, 451 U.S. 557, 566-67 (1981) (wrongdoer may not “insist upon specific and certain proof of the injury which it has itself inflicted”).

by Plaintiffs’ analysis of the public data, which show prices moving in abnormal ways on settlement Wednesdays. Complaint ¶¶ 121-24.

These allegations are sufficient at the pleading stage, and are substantially similar to those sustained by Judge Gettleman in a recent Rule 10b-5(a) and (c) case. *See CP Stone Fort Holdings, LLC v. Doe(s)*, No. 16 C 4991, Dkt. No. 67 (N.D. Ill. Oct. 3, 2017) (“*CP Stone III*”) (finding it “plausible that plaintiff can establish loss causation” where the allegations showed that “if defendant artificially manipulated the spread, plaintiff might have incurred losses (or earned smaller profits) as a result of defendant’s actions”); *see also CP Stone Fort Holdings, LLC v. Doe(s)*, 2016 WL 5934096, at *2-3 (N.D. Ill. Oct. 11, 2016) (“*CP Stone I*”) (Article III standing pled even where “the complaint [did] not allege that plaintiff purchased or sold any securities”). Likewise, here, CBOE undeniably has “some indication of the loss and the causal connection that the plaintiff has in mind.” *Akorn*, 240 F. Supp. 3d at 821.

CBOE’s arguments to the contrary are unavailing. CBOE again misconstrues the Complaint by arguing that Plaintiffs “do not tie any particular statements Cboe made to any specific loss Plaintiffs suffered.” MTD at 36. Again, this is not a misrepresentation case. Plaintiffs’ claim is not that they were harmed by any particular marketing statement, but by the whole of CBOE’s deceptive conduct in respect of the VIX franchise. The direct “causal connection” between CBOE’s creation, marketing, and maintenance of its deceptively flawed VIX franchise, and the losses suffered by Plaintiffs who transacted in CBOE’s VIX instruments, is plain. The directness of this connection is not reasonably called into question merely because other wrongdoers—the manipulative traders—were also involved.

CBOE next argues that Plaintiffs must tie specific transactions to specific episodes of manipulation in specific directions and amounts. MTD at 36-38. But this case is at the pleading

stage, and involves the alleged manipulation of a benchmark affecting entire markets. As a court held in a similar case involving the *ISDAfix* benchmark, “[a]t this stage, the appropriate question is whether the alleged manipulation of [the *ISDAfix* benchmark] plausibly caused each Plaintiff to suffer *some* loss under the terms of *some* derivative at *some* point.” *Alaska Elec. Pension Fund v. Bank of Am. Corp.*, 175 F. Supp. 3d 44, 53 (S.D.N.Y. 2016). As in *Alaska Electrical*, Plaintiffs’ allegations are that they transacted in affected instrument types during a period where manipulation is alleged to be “routine.” See Section I above. As in *Alaska Electrical*, such allegations more than suffice to meet the requisite plausibility standard.

The court in *In re Foreign Exchange Benchmark Rates Antitrust Litigation*, was similarly faced with a multi-year class period where financial benchmarks were alleged to have been manipulated in both upward and downward directions. 74 F. Supp. 3d 581, 587-88 (S.D.N.Y. 2015). The court held that the argument that plaintiffs had to match their specific holdings to specific acts of manipulation “amounts to a demand for specifics that are not required, and that Plaintiffs could not be reasonably expected to know, at the pleading stage.” *Id.* at 595. As recognized by these cases and others, the Court should not credit CBOE’s implausible counterfactual that Plaintiffs managed to be on the winning side of *every* act of *routine* manipulation, as to avoid being impacted at all.³³

³³ See also *Gelboim v. Bank of Am. Corp.*, 823 F.3d 759, 770 (2d Cir. 2016) (noting that the injury component of constitutional standing was “easily satisfied” by plaintiffs’ allegation “that they were harmed by receiving lower returns on LIBOR-denominated instruments as a result of defendants’ manipulation”); *In re LIBOR-Based Fin. Instruments Antitrust Litig.* (“*LIBOR VIP*”), 299 F. Supp. 3d 430, 459 (S.D.N.Y. 2018) (“[A]n injury-in-fact need not be capable of sustaining a valid cause of action’ Rather, ‘the fact that an injury may be outweighed by other benefits, while often sufficient to defeat a claim for damages, does not negate [Article III] standing.’”); *In re Commodity Exch.*, 213 F. Supp. 3d at 651 (“Because Plaintiffs have alleged a concrete injury as a result of Defendants’ manipulation (i.e., losses or artificially reduced gains on their gold investments), they have constitutional standing.”); *In re London Silver*, 213 F. Supp. 3d at 549-50.

CBOE cites a pair of LIBOR decisions to suggest that more is required to show standing. But those cases turned on facts not present here. In *Sonterra Capital Master Fund Ltd. v. Credit Suisse Group AG*, the failure of the individual plaintiff to provide any trading details was “especially problematic” because only 32 out of 4,000 potentially relevant days were implicated. 277 F. Supp. 3d 521, 570-72 (S.D.N.Y. 2017). And in *In re LIBOR-Based Financial Instruments Antitrust Litigation* (“LIBOR II”), there was no “limited access to information” that justified the lack of trading records, because the regulatory reports of “isolated manipulative activity” *did* identify the direction of each manipulation. 962 F. Supp. 2d 606, 621-622 & n.20 (S.D.N.Y. 2013). Accordingly, the court held that it was possible at the pleading stage for plaintiffs to determine which investors were injured and which were not. *Id.* at 622.³⁴

Finally, CBOE argues that loss causation is questionable for class members who did not hold VIX Options through cash settlement. MTD at 38. But even if this argument were accepted (which it should not be), dismissal of the Complaint would still be inappropriate, because some Plaintiffs *did* hold such derivatives through cash settlement. The Court thus need not dwell on the exact contours the class may eventually take.³⁵ But as to any instruments not held through settlement, the Complaint sufficiently alleges there is a correlation between the settlement value and the ongoing trading price of such instruments. Complaint ¶ 199. Plaintiffs thus plausibly allege that manipulating the SOQ process also impacted investors who traded in VIX Options and Futures but did not hold them through to settlement. *Id.* ¶¶ 135, 195-96, 200.

³⁴ To the extent the LIBOR-related cases are read more broadly, Plaintiffs respectfully submit that cases like *Alaska Electrical*, 175 F. Supp. 3d at 53, and *In re Foreign Exchange*, 74 F. Supp. 3d at 595, discussed above, should be followed instead, particularly on the facts here.

³⁵ See generally, e.g., *Boatwright v. Walgreen Co.*, 2011 WL 843898, at *2 (N.D. Ill. Mar. 4, 2011) (“Because a class determination decision generally involves considerations that are enmeshed in the factual and legal issues comprising the plaintiff’s cause of action a decision denying class status by striking class allegations at the pleading stage is inappropriate.”).

It is premature to declare a specific time window after which these effects supposedly would have abated (if ever). *See In re Commodity Exch.*, 213 F. Supp. 3d at 650-51 (accepting as true allegation that manipulation “had a lingering effect” on prices, the details of which are “not an issue that is ripe for resolution at the pleading stage”).³⁶

E. CBOE Is Not Entitled to Immunity

1. CBOE is only immune for regulatory acts taken when standing in the shoes of the SEC

CBOE argues that, even if the claims were otherwise well-pled and CBOE knowingly sold deceptive products to investors for years, it is immune from a suit such as this one. MTD at 7-17. But immunity is granted only in “rare and exceptional” circumstances. *Standard Inv. Chartered, Inc. v. Nat’l Ass’n of Sec. Dealers, Inc.*, 637 F.3d 112, 115 (2d Cir. 2011); *see also Auriemma v. Montgomery*, 860 F.2d 273, 275 (7th Cir. 1988) (“Absolute immunity from civil liability for damages is of a ‘rare and exceptional character.’”). “[B]ecause the law favors providing legal remedy to injured parties, grants of immunity must be narrowly construed; that is, courts must be careful not to extend the scope of the protection further than its purposes require.” *Weissman v. Nat’l Ass’n of Sec. Dealers, Inc.*, 500 F.3d 1293, 1297 (11th Cir. 2007). As the proponent of immunity, CBOE bears the burden of demonstrating it is warranted on the facts here. *City of Providence*, 878 F.3d at 46; *Johnson v. Root*, 812 F. Supp. 2d 914, 919-20 (N.D. Ill. 2011) (“[O]fficials claiming the ‘strong medicine’ of absolute immunity bear the burden of showing that public policy justifies immunity for the function in question.”).

To carry its burden to establish self-regulatory organization immunity, CBOE must show that its challenged conduct amounted to actions that a court “could properly characterize as

³⁶ Because Plaintiffs do not assert any claims against CBOE based on harm caused by those who transacted in ETPs, the Court can disregard CBOE’s half-hearted loss causation challenge to Plaintiffs’ ETP allegations against the Doe Defendants, which is irrelevant. MTD at 38 n.15.

regulatory,” such that CBOE was effectively “stand[ing] in the shoes of the SEC.” *City of Providence*, 878 F.3d at 47-48; see *Citadel Sec. LLC v. Chicago Bd. Options Exch., Inc.*, 2018 WL 5264195, at *4 (N.D. Ill. Oct. 23, 2018) (“SROs are entitled to immunity only for actions taken in their regulatory role.”). Regulatory immunity does not apply where a self-regulatory organization is acting in “its own market that is distinct from its oversight role, [and so] is acting as a *regulated* entity—not a *regulator*.”³⁷ *City of Providence*, 878 F.3d at 48.³⁸

2. *CBOE was not standing in the shoes of the SEC when creating, marketing and selling its VIX franchise*

CBOE fails to meet its burden of proving it was acting as a regulator with respect to Plaintiffs’ Rule 10b-5 claim. In creating, marketing, and selling its proprietary VIX derivative products, and in encouraging select investors to trade in those products, CBOE was acting as a commercial actor, not a regulator—and has the profits of its misconduct to show for it. For example, CBOE created the VIX in response to *consumer* demand, and because *CBOE*—not the SEC or any other regulator—wanted CBOE to have “the premier benchmark for U.S. stock market volatility.” See, e.g., Complaint ¶¶ 54, 146. CBOE then chose to monetize that index by

³⁷ The SEC itself has opined that “immunity does not properly extend to functions performed by an exchange itself in the operation of its own market, or to the sale of products and services arising out of those functions.” See Brief for SEC as Amicus Curiae at 22, 28-32, *City of Providence*, 878 F.3d 36 (No. 15-3057-cv), 2016 WL 7030327, at *22, *28-32.

³⁸ While CBOE repeatedly casts self-regulatory organization immunity as being all-encompassing, in fact the cases it cites confirm its limited scope. See *Huntley v. Chicago Bd. of Options Exch.*, 161 F. Supp. 3d 612, 618-19 (N.D. Ill. 2015) (holding that no immunity will apply where plaintiffs “allege facts plausibly showing that Defendants were ‘acting in [their] own interest[s] as [] private entit[ies],’ as opposed to within the ambit of their regulatory function”); *In re NYSE Specialists Sec. Litig.*, 503 F.3d 89, 96 (2d Cir. 2007) (recognizing exchange immunity only where “[the] alleged misconduct falls within the scope of the [exchange’s] quasi-governmental powers”); *Sparta Surgical Corp. v. Nat’l Ass’n of Sec. Dealers*, 159 F.3d 1209, 1214 (1998) (recognizing immunity for exchanges “only when they are acting under the aegis of the Exchange Act’s delegated authority” and not “[w]hen conducting private business”). Thus, contrary to CBOE’s argument, holding that CBOE can be liable for deceptive conduct regarding its proprietary VIX franchise would not require recognizing a “fraud exception.” MTD at 16. Such a holding would merely recognize that the conduct was not “regulatory” at all, and thus no “exception” is required.

creating a suite of proprietary VIX products intended to generate significant transaction fees for CBOE and its shareholders. *See, e.g., id.* ¶¶ 3, 11, 152. To increase its market share, and grow this business, CBOE also engaged in a deliberate, world-wide marketing campaign. *See, e.g., id.* ¶¶ 70, 71, 226. And it provided perks to certain traders to further encourage them to trade VIX-related products, and to participate in the SOQ process. *See, e.g., id.* ¶¶ 60 n.14, 62, 78. Throughout, these were commercial, for-profit actions, not the conduct of an entity standing in the shoes of the SEC or any other regulator.

Ample legal precedent supports this conclusion. In *Opulent Fund v. Nasdaq Stock Market, Inc.*, the creator of the NASDAQ-100 index was accused of negligently miscalculating the value of the index. 2007 WL 3010573, at *1 (N.D. Cal. Oct. 12, 2007). The use of incorrect figures caused the value of the plaintiffs' derivatives to be artificial. *Id.* Immunity was denied:

The Opulent Funds argue that pricing an index is not a “regulatory function” and therefore not conduct cloaked with absolute immunity. Upon examining the nature and functions of Nasdaq’s alleged actions, the court agrees. Nasdaq wished to create a derivatives market based on the stocks listed on its exchange. Accordingly, Nasdaq proposed, and the SEC authorized, the Nasdaq-100 index. Nasdaq encouraged investors to create instruments based on the index’s value and chose to disseminate this information. Nasdaq took this course of action because it profits from selling the market price data. In choosing to create the index and disseminate this price information, Nasdaq “represents no one but itself.”

Id. at *5. As with the NASDAQ-100, this story begins with CBOE’s creation of a proprietary index, the VIX. Complaint ¶¶ 1-2. As with NASDAQ, CBOE created the VIX index not as a regulator, but because it “wished to create a derivatives market” surrounding that figure. *See id.* ¶ 3-4. CBOE did so to profit, and in so doing “represented no one but itself.” *See id.* ¶ 4.

Similarly, in *In re Facebook, Inc., IPO Securities & Derivative Litigation*, Plaintiffs alleged that NASDAQ was aware of “system limitations” with the technology NASDAQ used to handle a large initial public offering, and that its systems “constituted a ‘poor design.’” 986 F. Supp. 2d 428, 442-43 (S.D.N.Y. 2013). The SEC imposed a civil monetary penalty, censured

the exchange, and ordered NASDAQ to cease and desist from future violations. *Id.* at 446-47. Nonetheless, private plaintiffs’ negligence claims relating to the “design, testing, and touting” of NASDAQ’s technology were allowed to proceed.³⁹ *Id.* at 450-54. This is because such actions were “undertaken to ‘increase trading volume’” and so were “non-regulatory.” *Id.* at 452. As the court held:

Allowing Exchanges to be immune from decisions about the promotion and design of business systems implemented to increase trading volume, particularly in such expanding international markets, would allow unrestrained motives for profit to go unchecked . . . As such, the regulatory functions of NASDAQ, including its decisions not to halt trading or announcements of those decisions, do not cloak NASDAQ’s independent negligence in failing to adequately design and test its software with retroactive immunity.

Id. at 453. CBOE here is accused not only of being negligent in the “design and testing” of its VIX franchise, but also of acting knowingly or recklessly. *See* Section II.B above.

Further, CBOE’s “touting” of its VIX franchise parallels the type of commercial promotional activity that the court in *Facebook* determined was not deserving of immunity.⁴⁰ Here, as there, the promotional activities were “in no sense mandated by, or coterminous with, any regulatory activity . . . instead, [CBOE] placed these advertisements to secure [business] and, as a result, increase company profits and trading volume on the Exchange.” *Facebook*, 986 F. Supp. 2d at 456. Far from standing in the shoes of the SEC, an exchange represents “no one but itself when it entices investors to trade on its exchange.” *Id.* More generally, CBOE’s pushing

³⁹ Only the negligence claims relating to a failure to halt trading on an emergency basis (not at issue here) were held to be barred by the immunity doctrine. *Facebook*, 986 F. Supp. 2d at 454-55.

⁴⁰ *Compare Facebook*, 986 F. Supp. 2d at 441-42 (highlighting statements that NASDAQ was working “for the benefit of investors”; “to meet the specific needs of [customers’] markets”; “to meet customers’ demands for speed, capacity, and reliability”; and to “deliver . . . innovative products and services”) *with* Complaint ¶¶ 65-72 (touting how VIX franchise could “help you turn volatility to your advantage”; explaining switch to weekly settlements as offering “more opportunities” for “more targeted” use of VIX franchise—“the Power of More”; bragging about “growing acceptance of trading VIX and VIX-linked products as risk management tools”; and discussing launch of “new branding campaign”).

of its proprietary products with a profit motive, while not dispositive,⁴¹ further confirms CBOE was acting in a commercial capacity.⁴²

Even more support for this point is found in CBOE's decision to give perks to certain traders to entice them to buy into the VIX franchise, such as discounts for quoting out-of-the-money SPX Options and the ability to place "strategy orders" in a certain time period. Complaint ¶¶ 60 & n.14, 78. These perks contributed to the deception by giving select traders specialized access and tools that they could and did exploit to manipulate more easily. *Id.* ¶¶ 78-79. Indeed, while disclaiming that "strategy orders" were used for nefarious purposes, CBOE itself acknowledges their importance in the underlying events. *See* MTD at 57-58; *but see* Section I above.

Perks like these and many other of the features discussed above were at issue in *City of Providence*. There, the Second Circuit declined to grant immunity to the exchanges for developing and selling proprietary products that gave advantages to high-frequency trading

⁴¹ CBOE cites *Dexter v. Depository Trust & Clearing Corp.*, where the self-regulatory organization's decisions as to dividend dates were "core exercises" of regulatory functions, and immunity was not lost merely because defendant was a "profit-seeking enterprise." 406 F. Supp. 2d 260, 263 (S.D.N.Y. 2005). Here, by contrast, Plaintiffs are not claiming CBOE should *lose* immunity over acts that were otherwise regulatory merely because it also had a profit motive. Rather, Plaintiffs allege that CBOE's profit motive is a relevant part of the showing that the conduct was not "regulatory" at all. *See Weissman*, 500 F.3d at 1297 (holding that while "[t]he test is not an SRO's subjective intent or motivation," there "may be some correlation between motive and intent and the function being performed").

⁴² CBOE posits that its statements must be ignored pursuant to *DL Capital Group v. Nasdaq Stock Market*, 409 F.3d 93 (2d Cir. 2005). MTD at 15. Like many of CBOE's citations, that case dealt with the core regulatory function of halting trading during an emergency. *DL Capital*, 409, F.3d at 96. That statements made during the course of responding to an emergency are immunized says nothing of the relevance of "touting" statements like those at issue here and in *Facebook* as buttressing support for the overall conclusion that the exchange was not acting in a regulatory capacity. *See Facebook*, 986 F. Supp. 2d at 456-57 (distinguishing *DL Capital* on this ground). CBOE's citation to *Troyer v. National Futures Association*, 2017 WL 2971962 (N.D. Ind. July 12, 2017), fares no better. There, the self-regulatory organization was alleged to have misrepresented that it was properly fulfilling its regulatory function by screening new members at registration, statements that were clearly "incidental to its regulatory . . . function." *Id.* at *11-12. The misstatements at issue were nothing like the concerted effort to market and sell proprietary products, as at issue here and in *Facebook*.

firms; the firms in turn exploited those products to manipulate prices. 878 F.3d at 41-43. The court explained that the exchanges were not being sued for “inadequately respond[ing] to, monitor[ing], or polic[ing] their members’ actions.” *Id.* at 48. Rather, the plaintiffs alleged the exchanges had “engage[d] in conduct to operate [their] own market that [was] distinct from [their] oversight role” and thus were “acting as . . . *regulated* entit[ies]—not . . . *regulator[s]*.” *Id.*; *see also id.* at 41-43 (recounting allegations that the exchanges had created “products and services . . . to attract HFT firms to trade on their exchanges”).⁴³ Similarly, Plaintiffs’ Rule 10b-5 claims do not arise from a “regulatory function,” but rather from CBOE developing, marketing and selling proprietary products that it knew certain traders were exploiting to the disadvantage of other investors. Like in *City of Providence*, this is conduct relating to CBOE’s “operat[ion] [of] its own market” as a “for-profit enterprise.” *Id.* at 41, 28.

CBOE tries to distinguish *City of Providence* by drawing a line between an exchange offering proprietary products that make *other* products subject to manipulation, and an exchange offering proprietary products that are *themselves* subject to manipulation. MTD at 14. But this argument makes no sense.⁴⁴ In both *City of Providence* and here, the exchanges were operating in a commercial capacity when they created, marketed, and sold proprietary products in a way that constituted a deceptive device, because the exchanges thereby allowed a limited number of traders to manipulate to the disadvantage of the broader trading public. Damages from both

⁴³ In an amicus brief, the SEC agreed that the exchanges were not entitled to immunity because the “products and services” at issue were “created and sold by the exchanges themselves.” Brief for SEC as Amicus Curiae at 28-32, *City of Providence*, 878 F.3d 36 (No. 15-3057-cv), 2016 WL 7030327, at *28-32; *see also id.* at 23 (holding that immunity primarily appropriate where an exchange “conducts proceedings to discipline its members, investigates violations of securities laws or other rules of conduct, and performs other duties analogous to law-enforcement and adjudicatory functions”).

⁴⁴ CBOE here cites only *Citadel*, but that case had nothing to do with an exchange “operating its own market” by way of a self-developed product so does not support CBOE’s proposed distinction. Indeed, the *Citadel* case was not about a deceptive scheme at all, but instead was *only* about a failure by the exchange to make sure the right fees were being charged, which was facially “regulatory” conduct. 2018 WL 5264195, at *4.

deceptive schemes were ultimately felt when the plaintiffs transacted in “list[ed] securities,” MTD at 14, for which the exchanges also had regulatory obligations. Thus, the fact that CBOE’s deceptive scheme involved the manipulation of its own products, rather than someone else’s, is a distinction without an actual difference. If anything, the fact that it was CBOE’s own proprietary products that were being manipulated only bolsters the conclusion that CBOE was operating in a commercial capacity rather than a regulatory one.⁴⁵

3. *Immunity is not gained for Plaintiffs’ Securities Exchange Act claims merely because Plaintiffs also allege Commodity Exchange Act claims*

CBOE argues that the inclusion of regulatory allegations in the Complaint are a “virtual concession that regulatory immunity applies” to Plaintiffs’ 10b-5 claims. MTD at 11. But the Rule 10b-5 claims are not based on any of the regulatory-related allegations. *See* Complaint ¶¶ 222-30 (Count One). The inclusion of allegations regarding CBOE’s regulatory obligations plainly instead serve Plaintiffs’ distinct CEA claims. *See id.* ¶¶ 231-38 (Count Two). To suggest the inclusion of both claims in the same pleading is fatal, CBOE cites to *In re NYSE Specialists Securities Litigation*, 503 F.3d 89 (2d Cir. 2007). But in that case the plaintiffs expressly based *their securities* claim on four categories of wrongdoing that plaintiffs themselves described as regulatory failures. *Id.* at 99. As that is not what Plaintiffs are doing here, *NYSE Specialists* is irrelevant.

⁴⁵ None of the other cases CBOE relies upon suggest otherwise. For instance, CBOE cites to *Huntley*, but there the plaintiffs only made “conclusory allegations” regarding non-regulatory actions, and “acknowledge[d]” those actions were regulatory in nature; the challenged actions also were not shown to be of any particular monetary benefit to the exchange. 161 F. Supp. 3d at 616-17. The case thus in no way shows Plaintiffs’ case here “fall[s] squarely” into a regulatory function, as CBOE posits. MTD at 13. Nor do any of the other cases CBOE cites in its immunity argument, which likewise involve entirely different fact patterns than CBOE’s deceptive scheme here. *See, e.g., Standard Inv.*, 637 F.3d at 116 (granting immunity over amendments to bylaws to allow for merger into single regulatory authority); *Sparta*, 159 F.3d at 1214 (granting immunity over decision to de-list stock because “there are few functions more quintessentially regulatory than suspension of trading”).

Unable to rebut Plaintiffs' distinct Rule 10b-5 claims as actually pled, CBOE asserts they all "boil[] down" to the question of whether CBOE policed against manipulation. MTD at 12-13. To support this logic, CBOE imagines a Rule 10b-5 trial in which evidence is used that could also support a trial establishing that CBOE failed to enforce its own rules per the CEA. CBOE hypothesizes that this overlapping trial evidence could include evidence showing that manipulation actually took place, that CBOE knew about it, and that its marketing materials were misleading. *Id.* at 12-16.

CBOE's argument thus amounts to the erroneous proposition that the potential for overlapping evidence between claims means that *all* claims must be immunized.⁴⁶ The court in *Facebook* properly rejected such a position. In *Facebook*, immunity was denied for some parts of the overall proof (the negligent design and touting of the IPO system) even as immunity was found for other allegations (the failure to halt trading when the system actually failed). 986 F. Supp. 2d at 450-55. The court had no difficulty parsing the relevant conduct, and held that the exchange's immunized "decisions not to halt trading . . . do not cloak NASDAQ's independent negligence in failing to adequately design and test its software with retroactive immunity." *Id.* at 453.⁴⁷ This Court should similarly reject CBOE's attempt to cloak its entire VIX franchise with immunity merely because CBOE might have stopped the manipulation with better policing.

⁴⁶ Notably, this argument would turn the limited immunity grant into a universal defense. In any case the exchange could argue that a defective and deceitful course of conduct might have been cured at the last moment by a sufficient policing mechanism, thus supposedly transforming any fact pattern into one that "boils down" to a regulatory failure.

⁴⁷ As another example, the district court in *City of Providence* recognized immunity as to some of the alleged unlawful conduct (the offering of proprietary data feeds and complex order types) but not others (the offering of co-location services). 878 F.3d at 43, 44. As discussed above, that decision was overturned on appeal as immunity was denied by the Second Circuit for all three products. But that does not change the fact the district court did not take, and was not faulted on appeal for not taking, the all-or-nothing approach CBOE urges here.

F. That Regulators Approved Certain of CBOE's Products or Processes Does Not Trigger Immunity or Preemption

CBOE repeatedly suggests that because certain of its rules regarding the VIX products were reviewed or “approved” by the SEC or the CFTC, the Court should find that immunity bars Plaintiffs’ securities claims. MTD at 2, 12. However, both the courts and the SEC have rejected such arguments.

For example, the Second Circuit in *City of Providence* declined to grant immunity in respect of the exchange’s offering of proprietary data feeds and co-location services firms, notwithstanding the SEC’s repeated approval of those practices. 878 F.3d at 42. That court also declined to grant immunity to the exchanges’ offering of complex order types, despite noting that these fell within the SEC’s regulatory authority. *Id.* at 43. In its amicus brief in that case, the SEC likewise made clear that its mere approval of an exchange’s product or practice does *not* give rise to immunity.⁴⁸ The court in *Facebook* similarly rejected the exchange’s claim of immunity despite the fact that “NASDAQ proposed, and the SEC authorized, a set of rules for conducting” the challenged process. 986 F. Supp. 2d at 451. Such decisions and others firmly establish that, contrary to CBOE’s argument, “SEC approval of a rule imposing a duty on an SRO is not the *sine qua non* of SRO immunity; engaging in regulatory conduct is.” *Opulent Fund*, 2007 WL 3010573 at *5.

Having failed to use these “approvals” as part of its *immunity* defense, CBOE next argues they mean Plaintiffs’ private Rule 10b-5 claims have been *preempted* by the Securities Exchange Act itself. MTD at 17-19. Here, CBOE cites *Credit Suisse Securities (USA) LLC v. Billing*, 551

⁴⁸ See Brief for SEC as Amicus Curiae at 32, *City of Providence*, 878 F.3d 36 (No. 15-3057-cv), 2016 WL 7030327, at *32 (noting that “even if the Commission ‘has approved all the challenged practices,’ as the defendants assert, this does not necessarily entitle the exchange to absolute immunity”).

U.S. 264 (2007).⁴⁹ But that case has nothing to do with whether a Rule 10b-5 claim could be precluded by the approval of a federal regulator; it concerns whether claims under antitrust laws can be precluded because of a potential conflict between those laws and the securities laws. *Id.* at 267. CBOE does not explain why such a concept should be imported into the very different context of a Rule 10b-5 claim essentially being (supposedly) preempted by the Securities Exchange Act itself. Nor does CBOE explain how such importation of *Billing* would even work. Unsurprisingly, then, CBOE cites to no court in the eleven years since *Billing* that has applied that decision to preempt an otherwise well-pled Rule 10b-5 claim, and fails to explain how such a ruling could be squared with cases like *Facebook*, *City of Providence*, and *Opulent Fund*, discussed above.

Finally, because the nature and circumstances surrounding the purported “approvals” and ramifications therefrom are intensely factual and well-outside the four corners of the Complaint, Plaintiffs respectfully submit it is inappropriate to delve into such issues at this stage.

G. Relying in Part on the Defective Design Does Not Render the Claim Untimely

As part of its “kitchen sink” defense, and primarily in connection with its immunity arguments, CBOE asserts that Plaintiffs have fallen into a statute of repose trap by referring to the defective nature of the VIX index and the SOQ process, given these were originally designed more than five years ago. MTD at 13-14. Not so. Plaintiffs’ Rule 10b-5 claims do not arise from a series of independently actionable false statements.⁵⁰ Rather, they are based on a

⁴⁹ Later in its brief, CBOE also cites *Lanier v. Bats Exchange, Inc.*, 838 F.3d 139 (2d Cir. 2016), which does concern whether regulatory action by the SEC can preempt private claims. But by only citing that case in connection with Plaintiffs’ negligence claim, MTD at 51-52, CBOE concedes it is inapplicable here. That is, *Lanier* was about the conflict between federal regulations and *state* laws, not between federal regulations and *federal* laws. 838 F.3d at 151.

⁵⁰ Plaintiffs are aware of one court in this district that has purported to decline to recognize a continuing-violation theory. *Howe v. Shchekin*, 238 F. Supp. 3d 1046, 1050 (N.D. Ill. 2017). However, the claim in that case was based entirely on “various misrepresentations and omissions” made in

continuous scheme to market and sell deceptive products. As such, the statute of repose will begin at the end of the scheme. See *In re Dynex Capital, Inc. Sec. Litig.*, 2006 WL 314524, at *5 (S.D.N.Y. Feb. 10, 2006); *Quaak v. Dexia S.A.*, 357 F. Supp. 2d 330, 338 (D. Mass. 2005). That scheme is continuing, or at least was continuing until as recently as February 2018, and thus the repose period has not yet run for any of CBOE's actions at issue here.⁵¹ At a minimum, the question of when the repose period began "must await factual development." *CP Stone I*, 2016 WL 5934096, at *3-4 (refusing to dismiss based on statute of repose unless pleadings themselves "create an ironclad defense").

In the alternative, the running of each settlement process, renewed touting efforts, new artificial payments, and other in-period acts should be viewed as creating their own claims with their own repose periods. It is thus not true that "any" claims are untimely just because a part of the deception began more than five years ago. Otherwise, bad actors would be free to sell deceptive products at will without fear of liability just because their fraudulent scheme had continued undiscovered for more than five years. This is not the law. At the very least, claims related to flawed settlement processes occurring less than five years prior to the filing of the first Securities Exchange Act complaint against CBOE (April 2018) are still indisputably timely.⁵²

connection with separate sales of stock. The *Howe* court was thus not presented with an actual continuous-scheme fact pattern at all.

⁵¹ See, e.g., *Goldenson v. Steffens*, 802 F. Supp. 2d 240, 259 (D. Me. 2011) ("[W]hen a defendant has committed a violation within the repose period, it allows a plaintiff to hold the defendant accountable for previous violations that are part of the same scheme"); *In re iBasis, Inc. Deriv. Litig.* 532 F. Supp. 2d 214, 221 (D.N.H. 2007) (statute of repose is relaxed in cases of "ongoing and continuing fraudulent schemes that relate to the very core of each company's business"); *In re Zoran Corp. Deriv. Litig.*, 511 F. Supp. 2d 986, 1014 (N.D. Cal. 2007) (recognizing that repose period can be relaxed for "continuous, integrated schemes that were operated by the same group of [defendants] over a period of time to achieve the same purposes").

⁵² Even if the Court so limits the claims, it still of course could consider all the facts in the Complaint, including those regarding the defective designs of the products, and, more specifically, CBOE's knowledge stemming therefrom. See, e.g., *Fischer v. Avandae, Inc.*, 519 F.3d 393, 401 (7th Cir. 2008) ("time-barred acts [are allowed] as support for a timely claim").

III. PLAINTIFFS PLAUSIBLY PLEAD COMMODITY EXCHANGE ACT CLAIMS

A. The Commodity Exchange Act Provides a Private Right of Action to Plaintiffs

CBOE⁵³ feigns confusion over which rules it left unenforced. MTD at 40. But CBOE does not actually dispute that if it allowed its products to be routinely manipulated, that failure would violate a number of applicable rules, including CBOE Rules 601 and 603. *See* Complaint ¶ 144(c) and (d). Nor does CBOE dispute that if it did not have sufficient rules to prevent the wrongful acts at issue here, that too would give rise to a statutory violation. CBOE also does not appear to dispute that both the failure of its own rules and the lack of sufficient rules would give rise to a private cause of action under Section 22 of the CEA, 7 U.S.C. § 25(b)(1)(A). Thus, if sufficiently pled, Plaintiffs do have a right to pursue Count Two.

Unable to dispute these points, apparently to distract, CBOE notes that *Section 5* of the CEA does not itself contain an express private right of action. MTD at 39. But *Section 22* of the CEA (entitled “Private rights of action”) does. And it expressly does so for failures relating to, among other things, Section 5 obligations:

A registered entity that fails to enforce any bylaw, rule, regulation, or resolution that it is required to enforce by section 7 [i.e., 7 U.S.C. § 7, which is also known as Section 5 of the CEA] . . . shall be liable for actual damages sustained by a person . . .

7 U.S.C. § 25 at (b)(1)(A). CBOE’s “argument” that Section 5 does not itself create a private action is thus semantics at best, and an attempt to mislead at worst. The Court indisputably can

⁵³ CBOE argues that the fact only CBOE Futures is a “registered entity” means only that entity is properly a defendant here. MTD at 40 n.16. However, 7 U.S.C. § 13c(a) confirms that “any person” who willfully aids, abets, induces, or procures a violation “may be held responsible for such violation as a principal.” Thus, CBOE Global and CBOE Options are also properly named in Count Two. *See generally* Section III.E below.

consider CBOE's obligations under Section 5⁵⁴ as part of Plaintiffs' case, by way of Section 22.⁵⁵

B. Plaintiffs' Allegations Are Sufficiently Particular

CBOE next argues that Plaintiffs' CEA claims fail because the Complaint does not identify "specific" instances of manipulation or "particular" quotes. MTD at 40-41. But none of the cases CBOE cites support a need to identify a specific, manipulated quote at the pleading stage. While the allegations in *Bosco v. Serhant*, 836 F.2d 271 (7th Cir. 1987), and *Troyer v. National Futures Association*, 290 F. Supp. 3d 874 (N.D. Ind. 2018), were upheld where the complaints happened to be able to 'name names,' that does not mean those cases establish identifying quotes as a pleading prerequisite in a completely different fact pattern.⁵⁶ Nor is CBOE assisted by the "any particular rule" language from *Braman v. The CME Group*, 149 F. Supp. 3d 874 (N.D. Ill. 2015). The part of *Braman* CBOE relies on held there could be no aiding and abetting liability against the exchange when it was not shown the allegedly "deceptive" high-frequency trading constituted a primary violation of the CEA at all. *Id.* at 892. With no primary

⁵⁴ Under Section 5 of the CEA, CBOE had an obligation to, among other things, "have the capacity to detect" manipulation; "monitor[] and enforce compliance with . . . rules prohibiting abusive trade practices on the contract market"; to use such capacities to "to prevent manipulation, price distortion, and disruptions of the delivery or cash-settlement process"; to "list on the contract market only contracts that are not readily susceptible to manipulation"; and to "establish and enforce rules . . . to protect markets and market participants from abusive practices committed by any party, including abusive practices committed by a party acting as an agent for a participant; and . . . to promote fair and equitable trading on the contract market." 7 U.S.C. § 7.

⁵⁵ *Sam Wong & Son, Inc. v. New York Merc. Exch.*, 735 F.2d 653 (2d Cir. 1984), cited by CBOE, does not trump the plain text of Section 22 of the CEA as to suggest otherwise. Instead, in that case the plaintiff alleged the defendant should have done something that legislative history showed had been *consciously omitted* from Section 5. 735 F.2d at 667.

⁵⁶ CBOE also cites to *Norton v. Southern Utah Wilderness Alliance*, 542 U.S. 55 (2004), but that case was interpreting the Administrative Procedure Act, and its use of the word "discrete" to discuss a claim for failure to properly regulate off-road vehicle use has no bearing on the pleading requirements for this case.

violation even feasible given the facts, there could be no secondary liability on the part of the exchange. *Id.*

The lack of legal support for a “specific” “particular quote” pleading standard is unsurprising, because such a standard would serve no legitimate purpose. CBOE posits that a specific quote must be identified or else it will be impossible for the Court to “decide whether the circumstances warrant[] enforcement.” MTD at 42. But this confuses what evidence may be required at a later stage with the pleading question currently before the Court. At the pleading stage, Plaintiffs’ claim need only be plausible. Having plausibly pled that manipulation was “routine,” “systemic,” and “systematic,” *see* Section I above, it is more than plausible that CBOE failed to live up to its obligations.

Finally, even if CBOE were correct that a “particular” or “specific” quote might ordinarily be required at the pleading stage, courts regularly lighten the pleading burden where, as here, the information is exclusively in the defendants’ control. *See generally, e.g., Simonian v. Maybelline LLC*, 2011 WL 814988, at *2 (N.D. Ill. Mar. 1, 2011). For instance, in *In re Natural Gas Commodity Litigation*, the court characterized as “disingenuous” the argument that a false-report CEA claim should be dismissed for lack of details as to “what transactions were purportedly implicated.” 358 F. Supp. 2d 336, 345 n.7 (S.D.N.Y. 2005). This was because plaintiffs made a showing of a “pattern of false reporting” and because “the specific facts underlying Plaintiffs’ allegations [were] exclusively within the knowledge” of the defendant. *Id.* So too here.

C. Plaintiffs Plausibly Plead Causation

For the same reasons that Plaintiffs plausibly plead causation for their Rule 10b-5 claim (*see* Section II.D above), Plaintiffs also plausibly plead causation for purposes of their CEA claims. Again, the causation requirement “ought not place unrealistic burdens on the plaintiff at

the initial pleading stage.” *Caremark, Inc. v. Coram Healthcare Corp.*, 113 F.3d 645, 649 (7th Cir. 1997); *see, e.g., Fin. Guar. Ins. Co. v. Putnam Advisory Co.*, 783 F.3d 395, 404 (2d Cir. 2015) (plaintiffs need only “provide a defendant with some indication of the loss and the causal connection” rather than “make a conclusive proof of that causal link”).

CBOE argues that it is impossible to show causation without first identifying the specific manipulative quote at issue. MTD at 42-43. As discussed above in Section III.B, such detail is not reasonably required at the pleading stage, and *Braman* does not say otherwise.

CBOE next argues that there is no but-for causation because catching someone after the fact would never have prevented losses, as the damage from that trade was supposedly already done. MTD at 43-44. CBOE cites no cases adopting such logic.⁵⁷ This is unsurprising, because starting the causation analysis at the point of an eventual punishment would make no sense given CBOE has affirmative regulatory obligations to prevent manipulation in the first place. Indeed, adopting CBOE’s approach would effectively nullify the CEA’s private right of action, as it is obviously true of any manipulation that discrete disciplinary actions come after the manipulative trades.⁵⁸

Even that aside, the argument that disciplinary actions by CBOE would not have prevented Plaintiffs’ damages is particularly unpersuasive given this case involves the *routine*

⁵⁷ CBOE in this section cites to *In re Foreign Exchange Benchmark Rates Antitrust Litigation*, 2016 WL 5108131 (S.D.N.Y. Sept. 20, 2016), and *Bosco*, 836 F.2d at 273. But those cases upheld the claims at issue. CBOE again relies on its faulty logic to conclude that, therefore, all complaints that do not have the specific features of the complaints in those cases must be per se invalid. In fact, nothing in those cases actually supports CBOE’s supposition. CBOE also cites in this section *Hemi Group, LLC v. City of New York*, 559 U.S. 1 (2010), which is inapposite for the reasons discussed below. And in the final “causation” case CBOE cites, *Allen v. Wright*, the Court merely held that the harm of a potentially diminished education had not been shown to be caused by IRS regulations relating to tax exemptions for private schools. 468 U.S. 737, 759 (1984).

⁵⁸ CBOE relatedly argues that there is no causation because it is speculative whether CBOE could have *successfully* disciplined anyone given the defenses those traders *might* have been able to raise. MTD at 44. This would similarly gut the enforcement mechanism, because again any entity in CBOE’s position could argue that an attempt to enforce a rule might have been unsuccessful.

manipulation for *years* of a franchise *CBOE created*. And the artificial settlement payments were made after the manipulation took place, based on CBOE's own calculations. CBOE's argument also ignores that its enforcement of a demonstrably strong regulatory regime would undoubtedly have had a deterrent effect. Thus, it is far more than plausible that prices would not have been set at artificial levels had CBOE been doing its job. This is confirmed by how the Doe Defendants reacted in the real world: the data show how responsive the manipulators were even to the *possibility* of actions against them, as manipulation abated when it was publicly reported that investigations were underway. Complaint ¶¶ 125-34.

Finally, CBOE argues there is no proximate causation. But the price artificiality here is intimately intertwined with CBOE's acts and omissions as the creators and maintainers of the VIX franchise. Proximate causation normally serves to merely "eliminate[] the bizarre." *Babbitt v. Sweet Home Chapter of Communities for a Great Or.*, 515 U.S. 687, 713 (1995). There is nothing bizarre about recognizing the liability of an exchange that created defective products, allowed those products to be routinely manipulated, then forced its customers to settle those products based on the exchange's resulting, artificial calculations.

To suggest otherwise, CBOE argues that there is a "general tendency" to limit liability to the "first step." MTD at 45. For this, CBOE relies entirely on *Hemi Group, LLC v. City of New York*, 559 U.S. 1 (2010). But there, the Supreme Court dismissed a RICO complaint based on a theory that the failure to provide certain paperwork led to a lost "opportunity to tax" cigarette buyers. *Id.* at 15. That says nothing of the direct link between CBOE's numerous acts and failures to act with regard to its VIX franchise and the damages on VIX Futures that ensued. CBOE fails to cite a single case where a private claim against a registered entity was dismissed on the basis that "actual manipulators" (MTD at 45) did the manipulating, thus somehow

severing the proximate connection. Nor is there anything in the text or structure of the CEA to suggest that suits against manipulators and exchanges that create manipulated markets are mutually exclusive; to the contrary, the CEA recognizes the right to pursue claims against multiple types of wrongdoers. *See Facebook*, 986 F. Supp. 2d at 450-51 (rejecting argument that all claims “arise from” what happened on the IPO trading day, where alleged wrongdoing began much earlier).

D. Plaintiffs Plausibly Plead That CBOE Acted in Bad Faith

1. In the Seventh Circuit, “bad faith” is present when an exchange negligently fails to fulfill a mandatory obligation

The Seventh Circuit in *Bosco* made clear that the CEA does not “use the words ‘bad faith’ in their ordinary-language sense,” and thus “in the present setting, involving an exchange’s failure to enforce its rule . . . the courts, including our own, have treated the term ‘bad faith’ as if it read ‘negligence.’” 836 F.2d at 277-78. Accordingly, “if an exchange’s regulation imposes a duty that the exchange *should* know is being flouted, the exchange is acting wrongfully” sufficient to “demonstrate bad faith.” *Id.* at 278 (emphasis in original). Only if the exchange was operating in an area where it had full discretion, “such as the power to take emergency actions,” is more than mere negligence required. *Id.*

The court in *Troyer* recognized that *Bosco* requires courts in this Circuit to apply one of two different standards, depending on the nature of the exchange’s obligations.⁵⁹ 290 F. Supp. 3d at 885. In *Troyer*, the rules violation was a failure to recognize that one member was the ultimate cause of another member’s malfeasance, and thus should have been terminated. *Id.* at 882-83. The court refused to impose the “more than mere negligence” standard where the

⁵⁹ In reaching this conclusion, the court in *Troyer* noted that the defendants had cited *Western Capital Design, LLC v. New York Mercantile Exchange*, 180 F. Supp. 2d 438, 441 (S.D.N.Y. 2001), but found it unavailing in light of binding Seventh Circuit law. CBOE also cites to *Western Capital* here. MTD at 46, 49.

defendant failed “to cite any authority to support its assertion that the [exchange’s] consideration of [its member’s] membership was an exercise of its discretionary power.” *Id.* at 885. And in *Hochfelder v. Midwest Stock Exchange*, cited favorably by *Bosco* as an example where courts in the Seventh Circuit have read “bad faith” to mean negligence, the Seventh Circuit assessed whether an exchange had “exercised due care in investigating” whether a member should be expelled. 503 F.2d at 364, 369 (7th Cir. 1976).

The negligence standard for “bad faith” for CEA claims in the Seventh Circuit applies here because, as in *Troyer*, CBOE does not even assert that it somehow had “discretion” to apply or not apply its rules to a routinely manipulated product that was part of its proprietary VIX franchise. To the contrary, Plaintiffs’ CEA claims are about CBOE’s *mandatory* obligations regarding rules “the exchange *should* know [were being] flouted.” *Bosco*, 836 F.2d at 278 (emphasis in original). This Court should thus apply the negligence standard mandated by the Seventh Circuit in *Bosco* and *Hochfelder*. All the facts discussed in Sections II.A and II.B above amply establish that CBOE acted negligently, to say the least.

2. *Plaintiffs plausibly plead bad faith even by CBOE’s standards*

Even if culpability beyond negligence was required, Rule 9(b) states that “[m]alice, intent, knowledge, and other conditions of a person’s mind may be alleged generally.” Fed. R. Civ. P. 9(b). CBOE’s suggestion that Rule 9(b) thus imposes an especially high pleading standard for states of mind, MTD at 46-47, is thus contrary to the text of the Rule itself. *See Armstrong v. Daily*, 786 F.3d 529, 547 (7th Cir. 2015) (noting in the context of an allegation of “bad faith” that “Rule 9(b) allows states of mind to be alleged generally”); *GMP Techs., LLC v. Zicam, LLC*, 2009 WL 5064762, at *3 (N.D. Ill. Dec. 9, 2009).⁶⁰

⁶⁰ *See also generally, e.g., In re GlenFed Sec. Litig.*, 42 F.3d 1541, 1547 (9th Cir. 1994) (superseded on other grounds) (“We conclude that plaintiffs may aver scienter generally, just as the rule

(a) Plaintiffs plausibly plead culpability

Even where the case involves a non-mandatory duty thus triggering a need to plead something more than negligence under *Bosco*, the Seventh Circuit confirmed that it suffices to show “that the exchange acted unreasonably.” 836 F.2d at 278. All the facts discussed above in Section II.B (e.g., CBOE’s design and exclusive control over its proprietary products; control and knowledge of all data relating thereto, including data indicating that manipulation was occurring; publishing of artificial settlement values; and provision of perks to certain privileged traders) show that CBOE acted not just unreasonably, but also knowingly.⁶¹

(b) Though unnecessary, Plaintiffs also plausibly plead CBOE acted with an ulterior motive

CBOE is wrong to argue that ulterior motive is a pleading requirement in the Seventh Circuit and is wrong to suggest that such must have been the “sole” motivating factor for the CEA violation. MTD at 48-50. CBOE relies heavily on *Sam Wong & Son, Inc. v. New York Mercantile Exchange*, but that court expressly recognized the narrow, “refined” question before it was when an “otherwise legitimate action” could give rise to liability. 735 F.2d 653, 674 (2d Cir. 1984). The court found that only a strong showing of animus could affirmatively transform an otherwise legitimate action into an illegitimate one. At the same time, it recognized the common-sense fact that if the action was not itself reasonable on its own terms, motivation is irrelevant. *Id.* at 678 n.32 (“Absent some basis in reason, [an] action could hardly be in good faith even apart from ulterior motive.”).

states.”); *Pension Trust Fund for Operating Eng’rs v. DeVry Educ. Grp., Inc.*, 2017 WL 6039926, at *5-6 (N.D. Ill. Dec. 6, 2017) (contrasting requirements of Rule 9(b) to those of the PSLRA).

⁶¹ For obvious reasons, the fact the Complaint plausibly pleads culpability cannot be overcome based on the mere fact the wrongdoer has publicly denied wrongdoing, as CBOE nonsensically suggests. MTD at 50.

The Seventh Circuit relied upon *Sam Wong* in *Zimmerman v. Chicago Board of Trade*, but it also expressly recognized that a party can demonstrate bad faith simply by showing that an emergency action lacked any “basis in reason.” 360 F.3d 612, 628 n.11 (7th Cir. 2004).⁶² And the Seventh Circuit again confirmed that motive is not a pleading requirement in *Bosco*. There, the Seventh Circuit held that, even where “more” than negligence is required, that “more” is satisfied by a showing “*either* that the exchange acted unreasonably *or* that it had an improper motivation.” 836 F.2d at 278 (emphasis added).

Thus, these cases stand only for the common-sense conclusion that if the exchange was acting demonstrably *reasonably*, it follows that bad faith could only come from strong evidence of a personal, ulterior motive. In this case, for all the reasons discussed above, there is no “general legitimacy” to CBOE’s handling of its VIX franchise. Rather, the full course of conduct is alleged to have lacked any “basis in reason.” Accordingly, Plaintiffs need not show an “ulterior motive” *at all*, let alone that personal animosity was the “sole” or “dominant” factor.

Even if Plaintiffs were required to plead an ulterior motive, they have done so here. *See* Section II.B.2 above. The case law repeatedly refers to selfish “financial gain” as giving rise to an “ulterior motive.”⁶³ CBOE observes that in other cases where an ulterior motive was properly

⁶² *Zimmerman* dealt with a directed verdict motion, not a pleading. In that case, the evidence at trial showed that the actions in question were “reasonable.” 360 F.3d at 629. Because the jury also heard “substantial evidence of a good faith regulatory motive,” *id.* at 624, a directed verdict for the defense was upheld.

⁶³ *See, e.g., Sam Wong*, 735 F.2d at 677; *W. Capital Design, LLC v. New York Mercantile Exch.*, 25 F. App’x 63, 65 (2d Cir. 2002); *In re Peregrine Fin. Grp. Customer Litig.*, 2014 WL 4784113, at * (N.D. Ill. Sept. 25, 2014) (allegations that defendant bank “had an incentive not to investigate, i.e. that it refrained from delving deeper . . . because Wasendorf was a valuable and important customer to whom they could sell additional services” were supportive of a bad faith finding); *DGM Invts., Inc. v. New York Futures Exch., Inc.*, 265 F. Supp. 2d 254, 261-62 (S.D.N.Y. 2003) (plaintiffs “entitled to discovery to substantiate their claims,” based on allegations of “Defendants’ financial interest in the market”); *Vitanza v. Bd. of Trade of City of N.Y.*, 2002 WL 424699, at *6 (S.D.N.Y. Mar. 18, 2002). In *Western Capital*, cited by CBOE, the only motive allegations were facially unreasonable “pure speculation.” 180 F. Supp. 2d at 442. There, plaintiffs claimed that unspecified exchange officers “may be among” the floor traders

pled, specific board members were alleged to have been trading in the impacted financial instruments. MTD at 49. But the fact this is a common scenario of course does not mean it is the only situation where an ulterior motive can be found.⁶⁴ CBOE also cites *Brawer v. Options Clearing Corp.*, 807 F.2d 297 (2d Cir. 1986), but that case concerned the possibility of marginally increased trading volume for options on a single company's stock over a few-day period. In that setting, the court merely held the marginal increase in revenue did not plausibly demonstrate that a *reasonable* refusal to “adjust” those options in a supposed emergency situation was done in bad faith. *Id.* at 303-04. Such a case does nothing to undermine the relevance of Plaintiffs' allegations that CBOE was trying for years to protect its “crown jewel” VIX franchise, and acting unreasonably while doing so.⁶⁵

E. Plaintiffs Also Plausibly Plead Secondary Liability Claims

CBOE argues that the secondary liability claims—Count Seven (principal-agent) and Count Eight (aiding and abetting)—should be dismissed in full. MTD at 50 n.20, 54-56.

Count Seven at a minimum requires recognition of the fact that the CBOE entities are each responsible for the actions of their own employees. *See* 7 U.S.C. § 2(a)(1)(B). While

who directly benefited from the exchange's failure to enforce prohibitions on certain types of outside trades, but offered no specific facts to support that allegation. *Id.*

⁶⁴ Even if personal corruption were the only type that counted, the Complaint here does explain the push to take CBOE public, the holdings of CBOE's insiders, and the impact the scheme had on the value of their stock. *See, e.g.*, Complaint ¶ 157.

⁶⁵ CBOE's citation to *Apex Oil Co. v. DiMauro*, 641 F. Supp. 1246 (S.D.N.Y. 1986), fails for similar reasons. There, the plaintiff alleged it was the victim of a conspiracy to coordinate the timing of demands for delivery of oil under futures contracts, as to force Apex to buy offsetting positions at exorbitant prices. *Id.* at 1252-53. On summary judgment, the evidence showed the exchange worked exhaustively to sort out the few-day situation, *id.* at 1277-78, that there was not a conspiracy, *id.* at 1280, and that the exchange “had ample basis in reason” for its actions, *id.* It was against this background that the court found that the argument that the exchange improperly elevated “investor confidence” by insisting upon Apex's performance under its contracts—as opposed to taking the highly irregular step of stopping the (non-existent) conspiracy by relieving Apex of its normal contractual obligations—did not save the claim against the exchange.

CBOE has not yet tried to avoid responsibility by pinning blame for the alleged wrongdoings on individuals, the Court should nonetheless be allowed in case such a defense is ever asserted.⁶⁶

The facts here also show that CBOE's VIX franchise was an integrated whole—manipulation on the SPX Options exchange was key to manipulating the cash-settlement value of VIX Futures, a sister product for VIX Options, as part of the attempt to monetize the VIX. In such a situation, it is plausible that all the CBOE defendants were each other's agents and were acting for each other when carrying out their respective tasks. Count Seven should thus also be upheld on this theory, despite CBOE's assertions that the role of each entity is insufficiently detailed. Courts have repeatedly recognized that a lower pleading standard applies when trying to distinguish between the roles of affiliated entities.⁶⁷

As for *Count Eight*, for similar reasons, Plaintiffs have plausibly shown that CBOE Global and CBOE Options aided and abetted CBOE Futures' violations as part of the concerted effort to benefit from the VIX franchise. Thus, Count Eight should be upheld as against those two entities on this theory.⁶⁸

⁶⁶ See generally, e.g., *In re Commodity Exch.*, 213 F. Supp. 3d at 674 (refusing to dismiss claim for principal-agent liability because discovery had not yet commenced and no indication at pleading stage that any employee "acted on a lark or in any way outside the scope of their employment"); *In re Foreign Exch.*, 2016 WL 5108131, at *25 (denying motion to dismiss principal-agent claims where there was no suggestion that "any trader was operating outside the scope of his employment when engaging in the alleged conduct").

⁶⁷ See, e.g., *Jepson, Inc. v. Makita Corp.*, 34 F.3d 1321, 1328-29 (7th Cir. 1994) (noting that plaintiffs may be "excused from specificity on th[e] subject" of which defendant was responsible for which acts, where plaintiffs were "not privy" to that information, and "the three corporate defendants . . . are related corporations that can most likely sort out their involvement without significant difficulty"); *DGM Invts.*, 265 F. Supp. 2d at 264 (refusing to dismiss CEA claims even though "it is true that the Complaint does not separately allege fraud with particularity as against each of the NYBOT Defendants" where facts were within the control of the defendants, making dismissal for failure to adequately plead knowledge on behalf of each "particularly inappropriate").

⁶⁸ Plaintiffs submit that CBOE Futures' liability is governed by the private right of action created as against registered entities, rather than by the aiding and abetting standard of Count Eight.

In addition with respect to Count Eight, as discussed above, Plaintiffs plead that CBOE was a primary violator in the alleged deceptive scheme. However, in the alternative, Count Eight should also be upheld as to CBOE Global and CBOE Options for aiding and abetting the violations by the Doe Defendants. CBOE's acts of (i) designing and marketing a product that was easily subject to manipulation, (ii) allowing it to be routinely manipulated, and then (iii) forcing traders to pay settlement amounts based on artificial calculations, at the very least, aided and abetted those acts of manipulation. *See generally Kohen v. Pacific Investment Management Co.*, 244 F.R.D. 469, 482 (N.D. Ill. 2007) (even routine act of buying notes and futures could trigger liability for aiding and abetting where actor had sufficient knowledge). As to this theory, other than to rehash its unavailing arguments that no wrongdoing has been plausibly pled, CBOE only adds the assertion that there is no reason to think CBOE *wanted* its products to be manipulated, supposedly absolving it of "aiding and abetting" liability vis-à-vis the Doe Defendants. MTD at 55. But the law does not require two wrongdoers to share an exact identity of interests. That CBOE knowingly gained by way of its VIX franchise shows sufficient culpability, even if it benefitted in a different way than the Doe Defendants.

IV. PLAINTIFFS PROPERLY ASSERT AND PLAUSIBLY PLEAD NEGLIGENCE CLAIMS

Plaintiffs respectfully withdraw their negligence claims with respect to VIX Options and SPX Options, which moots CBOE's arguments regarding CBOE Global's supposed regulatory immunity (*see* MTD at 50, *but see* Section II.E above), preemption under the Securities Exchange Act (*see* MTD at 51-52, *but see* Section II.F above), and SLUSA arguments (*see* MTD at 52-53) with respect to the negligence claims.⁶⁹

⁶⁹ VIX Futures are subject to the CEA, not the Exchange Act, and thus are not a covered security for the purposes of SLUSA. *See generally, e.g., Messer v. E.F. Hutton & Co.*, 833 F.2d 909, 916 n.5

This leaves CBOE's argument that negligence claims relating to VIX Futures are preempted by the CEA. MTD at 51. Not so, because CBOE stepped outside its regulatory shoes, as discussed above in Section II.E. CBOE relies on *American Agriculture Movement, Inc. v. Board of Trade*, but that case, like CBOE's other cases discussed in connection with the Securities Exchange Act, is yet another one regarding the core regulatory function of responding to a market emergency. 977 F.2d 1147, 1156-57 (7th Cir. 1992). State law claims are preempted by the CEA only to the extent they affect an exchange's market regulation, which, as explained above, is not the case here. *See Facebook*, 986 F. Supp. 2d at 454 n.15.

Turning to the merits of the claims, CBOE repeats the argument that it has not been shown to have done anything wrong, and nothing it did plausibly caused any damage. MTD at 54. This is incorrect, for the reasons discussed above in Sections I, II.A, and II.B. CBOE asserts that a generic desire for profit does not create a duty of care. MTD at 53. But what does create a duty of care is CBOE's entire course of conduct with regard to its VIX franchise. Courts have repeatedly found that a duty exists when upholding similar negligence claims against exchanges.

For example, in *Facebook*, the court sustained a negligence claim against NASDAQ based on flaws in the design and testing of NASDAQ's trading platform for IPOs. 986 F. Supp. 2d at 460-62. The court reasoned that the plaintiffs plausibly alleged that NASDAQ had a duty to adequately design and test the trading platform—especially given that NASDAQ had heavily promoted the platform. And in *Opulent Fund*, the court refused to dismiss a negligence claim against NASDAQ based on the mispricing of its index. 2007 WL 3010573, at *4-5. There, the

(11th Cir. 1987) (“[T]he courts have universally held that futures contracts for commodities are not ‘securities’”).

court reasoned that the exchange had a “duty to accurately calculate and disseminate” the price of an index it had created and licensed, which it had breached. *Id.* at *5.⁷⁰

CBOE’s final argument is that Plaintiffs are “bringing a negligent misrepresentation” case that is barred in Illinois. MTD at 53-54. As explained in Section II.A above, this is not a misrepresentation case, but a case based upon CBOE’s defective design of the options and futures at issue and the SOQ process. Negligent design is a claim that is recognized under Illinois law. *See Jablonski v. Ford Motor Co.*, 955 N.E.2d 1138, 1154 (Ill. 2011).

CONCLUSION

CBOE’s motion to dismiss should be denied in its entirety. However, in the event that the Court grants it in any part, Plaintiffs respectfully request a reasonable time in which to seek leave to amend the Complaint in order to address any deficiencies identified in that order. *See Runnion v. Girl Scouts of Greater Chicago & Nw. Ind.*, 786 F.3d 510, 519-520 (7th Cir. 2015) (“Ordinarily, however, a plaintiff whose original complaint has been dismissed under Rule 12(b)(6) should be given at least one opportunity to try to amend her complaint before the entire action is dismissed.”).

Dated: January 7, 2019

Respectfully submitted,

By: /s/ Jonathan C. Bunge
QUINN EMANUEL URQUHART &
SULLIVAN, LLP
Jonathan C. Bunge (Il. Bar #6202603)
Jessica Beringer (Il. Bar #6316524)
Margaret Haas (Il. Bar #6309897)
Athena Dalton (Il. Bar #6326790)
191 N. Wacker Drive, Suite 2700
Chicago, Illinois 60606
Telephone: (312) 705-7400
Fax: (312) 705-7401

/s/ Kimberly A. Justice
KESSLER TOPAZ MELTZER &
CHECK, LLP
Joseph H. Meltzer
Kimberly A. Justice
Geoffrey C. Jarvis
Joshua D’Ancona
Joshua A. Materese
280 King of Prussia Road
Radnor, PA 19087
Telephone: (610) 667-7706

⁷⁰ CBOE argues that “*absent such a duty*,” the economic loss rule governs. MTD at 53-54 (emphasis added). But because there was “such a duty,” this argument is inapplicable on its face.

jonathanbunge@quinnemanuel.com
jessicaberinger@quinnemanuel.com
margarethaas@quinnemanuel.com
athenadalton@quinnemanuel.com

Daniel L. Brockett
Crystal Nix-Hines
Toby E. Futter
Christopher M. Seck
51 Madison Avenue, 22nd Floor
New York, New York 10010
Telephone: (212) 849-7000
Fax: (212) 849-7100
danbrockett@quinnemanuel.com
crystalnixhines@quinnemanuel.com
tobyfutter@quinnemanuel.com
christopherseck@quinnemanuel.com

Jeremy D. Andersen
865 South Figueroa Street, 10th Floor
Los Angeles, California 90017
Telephone: (213) 443-3000
Fax: (213) 443-3100
jeremyandersen@quinnemanuel.com

Co-Lead Counsel

Fax: (610) 667-7056
jmeltzer@ktmc.com
kjustice@ktmc.com
gjarvis@ktmc.com
jdancona@ktmc.com
jmaterese@ktmc.com

Stacey M. Kaplan
One Sansome Street, Suite 1850
San Francisco, CA 94104
Telephone: (415) 400-3000
Fax: (415) 400-3001
skaplan@ktmc.com

Co-Lead Counsel

CERTIFICATE OF SERVICE

I, Jonathan C. Bunge, hereby certify that on January 7, 2019, I electronically filed the foregoing document using the CM/ECF system, and have verified that such filing was sent electronically using the CM/ECF system to all parties who have appeared with an email address of Record.

/s/ Jonathan C. Bunge
Co-Lead Counsel