UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM, et al.,

Plaintiffs,

-v-

BANK OF AMERICA CORPORATION, ET AL.,

Defendants.

CIVIL ACTION NO.: 17 Civ. 6221 (KPF) (SLC)

REPORT AND RECOMMENDATION

SARAH L. CAVE, United States Magistrate Judge.

TO THE HONORABLE KATHERINE POLK FAILLA, United States District Judge:

I. INTRODUCTION

Plaintiffs[1] in this antitrust class action, which alleges a wide-ranging conspiracy to prevent the domestic stock loan market from transitioning to a direct electronic exchange, have filed a motion for class certification and appointment of co-lead class counsel[2] pursuant to Federal Rule of Civil Procedure 23. (ECF No. 468 (the "Motion")). Defendants vigorously oppose the Motion. (ECF No. 431).[3] The Honorable Katherine Polk Failla referred the Motion to me for a Report and

[1] Plaintiffs are Iowa Public Employees' Retirement System ("IPERS"), Los Angeles County Employees Retirement Association ("LACERA"), Orange County Employees Retirement System ("OCERS"), Sonoma County Employees' Retirement Association ("SCERA"), and Torus Capital, LLC ("Torus"). (ECF No. 412 at 7).

[2] Proposed co-lead class counsel are Cohen Milstein Sellers & Toll PLLC ("Cohen Milstein") and Quinn Emanual Urquhart & Sullivan LLP ("Quinn Emanuel"). (ECF No. 412 at 56).

[3] Defendants includes both the "Prime Broker Defendants"— Bank of America, Merrill Lynch, Goldman Sachs, Morgan Stanley, Credit Suisse, JPMorgan, and UBS, including their affiliates that were named in the Amended Complaint but have not been voluntarily dismissed—and Defendant EquiLend, of which the Prime Broker Defendants were partial owners and on whose Board of Directors the Prime Broker Defendants' employees served. (ECF Nos. 73 ¶¶ 50, 56, 61, 69, 77, 86, 89; 105 at 3; 412 at 7 n.3; 431 at 60–61).

Recommendation. (ECF No. 471). For the reasons set forth below, I respectfully recommend that the Motion be GRANTED IN PART and DENIED IN PART.

II. BACKGROUND

A. Factual Background

The detailed factual background of Plaintiffs' antitrust conspiracy allegations is set forth in the Honorable Katherine Polk Failla's Opinion and Order denying Defendants' motion to dismiss. See Iowa Pub. Emps.' Ret. Sys. v. Merrill Lynch, Piece, Fenner & Smith Inc., 340 F. Supp. 3d 285, 297–310 (S.D.N.Y. 2018) ("IPERS I"). The Court assumes the reader's familiarity with that background, and adopts and employs the defined terms that appear in IPERS I. The Court sets forth the following facts pertinent to the Motion based on the Amended Complaint (ECF No. 73), which is the operative pleading, and the exhibits submitted by the parties. See Martínek v. AmTrust Fin. Servs., Inc., No. 19 Civ. 8030 (KPF), 2022 WL 326320, at *1 n.1 (S.D.N.Y. Feb. 3, 2022) (in deciding class certification motion, relying on operative pleading and exhibits parties submitted in connection with motion).[4] The Court resolves factual disputes only to the extent necessary to determine the class certification issues. See In re Initial Pub. Offerings ("IPO") Sec. Litig., 471 F.3d 24, 27, 41–42 (2d Cir. 2006) (explaining that, when deciding motion for class

[4] The parties' exhibits are too numerous to list, and appear as exhibits to the following: (i) Declaration of Michael B. Eisenkraft in Support of Plaintiffs' Motion for Class Certification and Appointment of Cohen Milstein Sellers & Toll PLLC as Co-Lead Class Counsel, dated Feb. 22, 2021 (ECF No. 413); (ii) Declaration of Daniel L. Brockett in Support of Plaintiffs' Motion for Class Certification and Appointment of Quinn Emanuel Urquhart & Sullivan, LLP as Co-Lead Class Counsel, dated Feb. 22, 2021 (ECF No. 414); (iii) Declaration of Michael A. Paskin in Support of Defendants' Memorandum of Law in Opposition to Plaintiffs' Motion for Class Certification, dated June 29, 2021 (ECF No. 432); (iv) Reply Declaration of Daniel L. Brockett in Support of Plaintiffs' Motion for Class Certification, dated Oct. 5, 2021 (ECF No. 470); (v) Declaration of John S. Playforth in Support of Defendants' Sur-Reply in Opposition to Plaintiffs' Motion for Class Certification, dated Nov. 22, 2021 (ECF No. 496); (vi) Sur-Sur-Reply Declaration of Daniel L. Brockett in Further Support of Plaintiffs' Motion for Class Certification and Appointment of Class Counsel, dated Jan. 18, 2022 (ECF No. 514).

certification, district court must assess the evidence and "resolve factual disputes" relevant to the motion); see also Sykes v. Mel Harris & Assocs., LLC, 285 F.R.D. 279, 283 (S.D.N.Y. 2012) ("Sykes I") (same), aff'd sub nom., Sykes v. Mel S. Harris & Assocs., LLC 780 F.3d 70 (2d Cir. 2015) ("Sykes II").

1. The U.S. Stock Loan Market

a. Plaintiffs' Characterization

Plaintiffs' experts Haoxiang Zhu ("Dr. Zhu") and Professors Paul Asquith ("Prof. Asquith") and Parag Pathak ("Prof. Pathak," together, "Asquith & Parak"), together provide an overview of the United States stock loan market. (ECF Nos. 414-9 ("Dr. Zhu's Report"); 414-10).

A stock loan transaction involves one party (the lender) loaning shares of stock to another party (the borrower) in exchange for collateral for the duration of the loan. (ECF 414-9 at 9 ¶ 16). The collateral may be either cash or non-cash, and is generally 102–05% of the value of the borrowed security, adjusted daily ("marked to market") daily as the market value of the stock and any non-cash collateral fluctuates. (Id. at 9 ¶ 17; ECF No. 414-10 at 28 ¶¶ 55–56). For cash collateral, "the lender reinvests the cash at the 'reinvestment rate' and pays the borrower a daily accrued 'rebate' on the value of the cash collateral." (ECF No. 414-9 at 9 ¶ 18). The loan cost (which the agent lender/beneficial owner retains) is the benchmark rate minus the rebate rate, expressed in basis points. (Id. at 10 ¶ 19; 414-10 at 31 ¶ 63).[5] The loan cost for easy-to-locate stocks in significant supply—general collateral, "GC," or "cold"—is lower than difficult-to-locate stocks in high demand—hard-to-borrow, or "HTB," which can be either "hot" or "warm[.]" (ECF

[5] Asquith & Parak use the terms loan cost and loan price interchangeably. (ECF No. 414-10 at 32 ¶67, 32 ¶ 81).

No. 414-10 at 32–33 ¶ 68). The harder a stock is to borrow, the lower its rebate rate and the higher its loan price. (Id. at 33 ¶ 69). For non-cash collateral, the borrower must pay a "fee" defined "as an annual percentage paid on the value of the security." (ECF No. 414-9 at 9 ¶ 18). "[T]he borrowed stock is marked-to-market daily, with the corresponding collateral adjusted accordingly[,]" resulting in a corresponding change in the loan fee, or "re-rates." (ECF No. 414-10 at 34–35 ¶ 74).

During the Class Period (discussed infra § IV.D), the two categories of stock lending transactions were: "(1) stock loans made by 'Beneficial Owners,' often via their 'Agent Lenders,' to Broker-Dealers and (2) stock loans made by Broker-Dealers to end-user borrowers." (ECF No. 414-9 at 10–11 ¶ 22). Beneficial owners are the "end-users on the supply side," and "include pension funds, mutual funds, insurance companies, and other owners of U.S. equities." (Id. at 11 ¶ 23; see ECF No. 414-10 at 20–21 ¶ 39). An agent lender is the entity through which a beneficial owner lends the stock. (ECF Nos. 414-9 at 12 ¶ 26; 414-10 at 25 ¶ 49). An agent lender typically reinvests the borrower's collateral, receiving a rate of return called the "cash reinvestment rate." (ECF No. 414-9 at 12 ¶ 27).

The end-users on the demand side are the borrowers, who "borrow stocks to execute their trading strategies, including hedging and speculation." (ECF No. 414-9 at 13–14 ¶ 31). One such strategy is short-selling, which is "'the sale of a security that the seller does not own or [] owns but does not deliver" and involves the short seller "borrow[ing] the security, typically from a broker-dealer or an institutional investor[,]" whom the short seller locates suing the securities lending market. (ECF No. 414-10 at 17–18 ¶¶ 32–34 (quoting 17 C.F.R. Part 240 https://www.sec.gov/rules/concept/34-42037 htm)). During the Class Period, (see § II.A.3,

infra), borrowers did not trade directly with agent lenders or beneficial owners; rather, prime brokers acted as intermediaries, borrowing stocks from beneficial owners or their agent lenders and lending stocks to end-user borrowers. (ECF No. 414-9 at 12 ¶ 28). "The differences in the price between the two sides of the market, or the spread, is a measure of the transaction cost for end[-]users and a measure of prime broker revenues." (Id.) Prime brokers also engage in proprietary stock loans, and borrow and lend stock from other prime brokers. (Id. at 12–13 ¶ 29).

In the stock lending transaction, the lender transfers legal title of the stock to the borrower, but retains the economic benefits such as dividend payments, which the borrower must deliver back to the lender. (ECF Nos. 414-9 at 10 ¶ 20; 414-10 at 36 ¶¶ 78–79). A stock lending transaction "typically involves a standardized contract, and the mechanics of securities lending derives from a combination of industry practices and regulations." (ECF No. 414-10 at 18 ¶ 34). In the current over-the-counter (or "OTC") market, a stock loan facilitated by a broker-dealer, typically consists of the following steps:

a. The short seller contacts the broker-dealer to locate a specific stock and may specify a loan term;
b. The broker-dealer seeks to locate the stock, often from an agent lender or beneficial owner;
c. The agent lender/beneficial owner chooses whether to lend to a specific broker-dealer; the broker-dealer also chooses whether to borrow from a specific agent lender/beneficial owner;
d. The agent lender/beneficial owner lends stock to the broker-dealer at Level 1 at a loan cost;
e. At Level 1, the agent lender/beneficial owner typically receives, in cash from the broker-dealer, 102% of the value of the securities, which it reinvests. If an agent lender facilitates the transaction, it keeps a portion of the investment return on the collateral and pays the remainder to the beneficial owner;
f. At level 2, the broker-dealer lends the stock to the short seller at a loan fee. The broker-dealer receives 100% of the value of the securities lent in cash from the short seller.

(ECF No. 414-10 at 29–30 ¶ 59). See IPERS I, 340 F. Supp. 3d at 300.

"The stock loan market is known as an [OTC] market because it has no central marketplace where participants can engage in direct exchanges, or obtain real-time data about trading prices and transaction volumes." IPERS I, 340 F. Supp. 3d at 300 (citing ECF No. 73 at 35 ¶ 98; see ECF No. 414-10 at 23 ¶ 44 ("Despite its importance and size, with trillions of dollars of securities borrowed and lent between the largest financial market participants each year, the stock lending market in the U.S. remains an opaque, OTC market.")). Based on his "review of the economic theory of OTC markets," Dr. Zhu opines "that the OTC market structure benefits intermediaries at the cost of customers." (ECF No. 414-9 at 14 ¶ 32). Dr. Zhu labeled the economic theory he used to analyze the OTC market structure as "'search theory,' because investors must actively search for good prices by contacting dealers[,]" and explained that "[w]hen search costs are high, sellers face less competition and can therefore keep higher profits for themselves." (Id. at 14 ¶ 33). Dr. Zhu contends that "[t]he use of technology to connect buyers and sellers is a time-tested way to reduce search costs." (Id. at 14–15 ¶ 34). While "[e]nd users (lenders and borrowers) in the stock loan market face high search costs," Dr. Zhu contends that "technology that could have decreased search costs for end users has not been widely used in the marketplace—even though a number of platforms and companies made efforts to enter the market and provide competition-enhancing services." (Id. at 15 ¶ 35). Instead, the existing "OTC market structure is more profitable for the major OTC dealers, who, if the alleged conspiracy is true, have agreed to avoid using any emerging platforms that would increase competition or transparency." (Id.) Dr. Zhu points to statements by the Prime Broker Defendants demonstrating that they "are and were well aware of the inefficiencies of the OTC market." (Id. at 15 ¶ 36).

Dr. Zhu also cites to economic literature, including a Nobel Prize-winning model of the OTC market by Peter Diamond, that supports "[t]he link between high search costs and high mark-ups." (ECF No. 414-9 at 15–17 ¶¶ 37–40). In contrast, "lower search friction brings benefits to consumers." (Id. at 17 ¶ 41). Dr. Zhu's research has in turn focused on applying these economic search models to OTC market structures. (Id.) His research has shown that "the core problem of OTC markets is that end users cannot get access to multiple competing quotes simultaneously," and that "search frictions in OTC markets increase investors' transaction costs," leading "to worse prices for end users but higher profits for the dealers." (ECF No. 414-9 at 18 ¶ 44, 19 ¶ 47).

Similarly, Asquith & Parak, using a supply-and-demand framework, observe "the adverse market-wide impact of the Prime Broker Defendants' intermediation on the quantities and prices of stocks supplied by agent lenders/beneficial owners and the quantities and prices demanded by the short sellers." (ECF No. 414-10 at 36–37 ¶ 80). Intermediation refers to the broker-dealer's role in "locating shares and certifying counterparty credit quality." (Id. at 43 ¶ 96). "Locating shares of GC stocks is straightforward since there is an excess supply[,]" but HTB "shares may not be immediately available to the broker-dealer." (Id. at 44–45 ¶¶ 100–01). Asquith & Parak posit that "[e]ven if the sourcing of certain HTB stocks may be difficult, this activity generates relatively little value compared to a market with electronic platforms, where transparent prices provide a virtually costless mechanism to induce the supply." (Id. at 45 ¶ 101). As to certifying creditworthiness—to beneficial owners who "may not wish to loan stock without first vetting the credit worthiness of the borrower"—Asquith & Parak explain that the costs are also "small because a short sale involved mark-to-market collateral." (Id. at 46–47 ¶¶ 107–08).

The "six Prime Broker Defendants control the majority of stock lending volume." (Id. at 51 ¶ 115). Thus, Asquith & Parak find "strong evidence that in the existing OTC market structure prices are not competitive," including "widespread dispersion in the loan fees lenders receive for the same shares on a given day in their transactions with the Prime Broker Defendants at Level 1, and a similar dispersion in the loan fees that short sellers pay to Prime Broker Defendants at level 2." (Id. at 52 ¶ 116).

In contrast to the OTC market, Asquith & Parak find common evidence showing "that there was a wide variety of alternative platforms and structures at Level 1 and Level 2[,]" which "only needed minimal steps to connect borrowers directly to lenders[,]" and thus posed a threat to the Prime Broker Defendants, who designed and carried out a conspiracy to mitigate that threat. (ECF No. 414-10 at 53–92 ¶¶ 117–86). In particular, "the AQS platform contained the functionality to enable the agent lenders/beneficial owners and short sellers to transact directly without the intermediation of broker-dealers[,]" at prices that "were typically superior to OTC transactions intermediated by the Prime Broker Defendants; that is, that lenders typically received higher prices on AQS and borrowers typically paid lower prices." (Id. at 93 ¶ 187, 102 ¶ 200). Applying the inference from their supply-demand framework "that platform transactions should take place at prices that were superior to the OTC prices intermediated by the Prime Broker Defendants," Asquith & Parak compared trades on AQS to OTC trades with three of the Prime Broker Defendants, and concluded that, notwithstanding the conspiracy and platform boycott, "the loan prices on stock loans executed on AQS were systematically lower than the Level 2 price for Prime Broker Defendants' intermediated loans." (Id. at 107–09 ¶ 212–17, 111–12 ¶ 220).

b. Defendants' Characterization

Defendants dispute Plaintiffs' characterization of the stock loan market, instead describing a stock loan as "creat[ing] a 'marriage' of lender and borrower that lasts until the" stock is returned, which, they assert, is unsuited for a "blind-auction based platform" like AQS. (ECF Nos. 431 at 4; 432-5 at 2). One of Defendants' experts, Professor Terrence Hendershott ("Prof. Hendershott"), lists a variety of factors influencing the loan price, including "the terms of the lending arrangement, the identities of and the relationship between counterparties, the lender's collateral reinvestment strategy, and the different allocation strategies followed by different agent lenders." (ECF No. 432-1 at 27). Defendants' expert, Prof. Justin McCrary ("Prof. McCrary") points out that the fierce competition among prime brokers in the stock loan market has led to "extremely aggressive pricing" and dispersed concentration, such that the Prime Broker Defendants "did not have the collective ability to prevent platform success either by refusing to transact on a platform or by withholding clearing sponsorship from the beneficial owners or short sellers that might have sought to transact on a platform." (ECF No. 432-2 at 42–44 ¶¶ 104, 107 (citation omitted)).

Defendants describe stock lending and stock borrowing (or "shorting services") as "two distinct markets[,]" which have "conflicting needs" that prime brokers accommodate by "providing flexibility to beneficial owners and stability to short sellers." (ECF No. 431 at 14). The flexibility prime brokers provide to beneficial owners includes returning stock on demand or accommodating corporate action preferences. (ECF Nos. 432-2 at 51–52 ¶ 125; 432-3 at 48–49 ¶¶ 69–70). The stability prime brokers provide to short sellers includes replacing recalled stocks, managing rerate requests, and using their own inventory to protect short sellers from recalls.

(ECF Nos. 432-2 at 56 ¶ 134; 432-4 at 22, 24–26 ¶¶ 44, 48–49). Defendants' experts list a "bundle of services" prime brokers provide to short sellers that are critical to effectuating short sales. (ECF Nos. 432-2 at 23–25 ¶¶ 60–64; 432-4 at 14 ¶ 25; see id. at 111–12). Prime brokers also establish "relationships with lending agents that offer access to HTB stocks, a broad and stable supply of stocks with a reputation for less frequent recalls, and a reasonable approach to re-rating[,]" resulting in a "mutually beneficial relationship[.]" (ECF No. 432-3 at 39 ¶ 51). Specifically, these relationships aid both short sellers and beneficial owners, assisting short sellers obtain more stable loans, and helping beneficial owners lend a larger percentage of their lendable stock. (ECF No. 432-3 at 38–48 ¶¶ 50–68). Defendants argue that Plaintiffs' experts "ignore these valuable prime broker services and incorrectly treat stock loans executed on anonymous platforms as identical to OTC stock loans executed with prime brokers." (ECF No. 431 at 15). For example, Defendants point to evidence that certain short sellers, beneficial owners, and agent lenders did not view anonymous platforms such as AQS "as a viable substitute for OTC loans." (ECF No. 431 at 15; see ECF Nos. 432-6 at 3 ¶ 14 (AQS not "viable" for borrowing stocks for short sales); 432-7 at 61 (AQS did not get to "full automation"); 432-8 at 86 (describing events that AQS was "not able to facilitate")).

In addition, Defendants contend that the characteristics of stock loans render them unsuitable for anonymous trading: they are not standardized, infrequent, and transparent, such that they would reveal a short-seller's confidential trading strategies. (ECF No. 431 at 15; see ECF Nos. 432-1 at 82–83 ¶¶ 150–51, 160–65, 166–72, 191; see id. at 294; 432-4 at 32–36 ¶¶ 62–68, 96–97 ¶¶ 177–78).

2. The Anticompetitive Conspiracy

a. Origins

Plaintiffs have presented evidence showing that, in 2001, Defendants Goldman Sachs, Morgan Stanley, JPMorgan, Merrill Lynch, and UBS, formed an entity called "EquiLend" to be a "utility" to facilitate the "electronic movement of buys and sells of securities lending" for the "consortium" of its owners. (ECF Nos. 414-7 at 381; 414-19 at 23–24, 49, 62–63; 414-20 at 2). These Defendants recognized "that a number of new entrants and pure auction sites could arrive to disintermediate them[,]" and formed EquiLend to mitigate the "[t]hreat of disintermediation." (ECF Nos. 414-4 at 44; 414-21 at 16). In forming EquiLend, Defendants "agree[d] . . . that industry advances should be achieved from within EquiLend." (ECF No. 414-23 at 3).

One entity that "posed an early 'disintermediation' threat" was Secfinex, a stock loan exchange owned by the New York Stock Exchange ("NYSE"). (ECF No. 412 at 24). In 2004, SecFinex "[i]ntroduced pre-trade anonymous trading from best bids and offers . . . with aggregated depth." (ECF No. 414-25 at 3). SecFinex provided "a browser[-]based, online trading platform which allow[ed] securities finance professionals (borrowers and lenders) to trade electronically between counterparties and improve efficiency (access to securities from a central hub) in the securities lending market." (ECF No. 414-26 at 4). EquiLend's owners "perceived [SecFinex] rightly or wrongly as a threat," (id. at 3), and "boycotted" SecFinex. (ECF No. 412 at 24). Representatives of Defendant UBS, for example, perceiving that CCP will be forced on us by regulators in some form or other so best we as an industry get on the front foot and implement something that works for us rather than get forced down a Secfinex style exchange route where we get disintermediated," asserted that "Equi[L]end would be the best solution." (ECF No. 414-

9 at 125). By April 2008, Defendant Morgan Stanley perceived "transparency providers" and "[e]xchanges" as posing a "[d]isintermediation" threat of "Margin Compression" and "Market Share Decline." (ECF No. 414-29 at 4, 21). By March 2009, Defendant JPMorgan perceived that disintermediation would "compress margins for large prime brokers" including itself, Goldman Sachs, and Morgan Stanley, and that a securities lending platform like AQS "may transform securities-lending into a central counterparty[-]based industry." (ECF Nos. 414-32 at 2; 414-33 at 7).

Plaintiffs have presented evidence that, in late 2008 or early 2009, the Prime Broker Defendants formed a "CCP Working Group" through EquiLend to "bring together interested owner firms to discuss features, benefits and risks of a [CCP] model in global securities finance." (ECF Nos. 414-34 at 3; 414-35 at 2). Plaintiffs contend that "[t]he Prime Broker Defendants met for years as part of this CCP Working Group," through which they "worked to stop" the creation of a CCP-linked electronic trading platform for the stock lending market. (ECF No. 412 at 26). By June 2009, the Prime Broker Defendants had concluded that "the value of CCP [to the stock loan market was] highly questionable," and directed EquiLend to "stay close to CCP market evolvement and understand CCP models but not formally engage or develop links to any CCP." (ECF No. 414-27 at 2). The Prime Broker Defendants also agreed to inform each other "if their view or perception of CCPs changes or whether they decide to participate in CCP bi-laterally." (ECF No. 414-27 at 2; see ECF No. 414-6 at 8–9). Plaintiffs characterize this as the Prime Broker Defendants' "agreement . . . [to] boycott platforms connected to CCPs." (ECF No. 412 at 9–10).

b. AQS

According to Plaintiffs, "AQS was one of the new entrants that the Prime Broker Defendants agreed to boycott." (ECF No. 412 at 28). AQS grew out of QuadriServ with the goal of becoming a centralized, electronic market for stock loan transactions, and went "live" at the end of January 2009. (ECF Nos. 414-39 at 143; 414-40 at 4).

The Prime Broker Defendants perceived AQS as a threat, with Morgan Stanley suggesting that AQS "could be the stock loan equivalent of the NYSE[,]" and JPMorgan observing that AQS "[p]rovides a centralized sec[urities] lending exchange where hedge funds can trade directly with agents[.]" (ECF Nos. 414-42 at 2; 414-43 at 5; see ECF No. 412 at 28). The Prime Broker Defendants resolved to "squash these muppets," i.e., AQS, by refusing to do business with AQS or trade on its platform, and threatening to retaliate against anyone who supported AQS. (ECF Nos. 414-48 at 2; 414-54 at 2). For example, Goldman Sachs told clients that "they were getting cut off" for using AQS, and "beat [] up" BNYM for signing up for AQS in 2010. (ECF Nos. 414-54 at 2; 414-55 at 2). Northern Trust "disengaged" from involvement with AQS after Goldman Sachs and Morgan Stanley threatened to stop borrowing from Northern Trust if it "came on AQS." (ECF No. 414-58 at 2). Following a meeting with Goldman Sachs, State Street similarly cooled on joining AQS, citing the risk of disintermediation. (ECF Nos. 414-60 at 4–5; 414-61 at 13). Although Defendant Bank of America had initially invested in AQS, Plaintiffs contend that it "ultimately fell in line with the conspiracy, withdrawing its support and joining the ranks of the other Prime Broker Defendants in boycotting the platform." (ECF No. 412 at 29; see ECF No. 414-39 at 755–56).

As a result of the Prime Broker Defendants' conduct, "AQS learned the hard way that [none of the major Prime Brokers] will support a Hedge fund model" for stock lending. (ECF No. 414-62 at 3). In 2016, AQS "failed" and EquiLend bought its assets, in what Plaintiffs characterize as a "defensive play" to "neutralize" the "AQS threat[.]" (ECF Nos. 414-39 at 14–17, 145; 412 at 30).

Defendants counter that AQS failed because it "increased the cost and complexity of stock loan transactions and failed to offer the stability and other essential services provided by prime brokers." (ECF No. 431 at 16). For example, because the Options Clearing Corporation ("OCC") was the only CCP for AQS participants, Class Members who were not or could not become OCC members would "have had to hire an OCC clearing member to sponsor their AQS transactions into the OCC." (Id.; see ECF Nos. 432-3 at 76 ¶ 106; 432-1 at 52 ¶ 91, 119–21 ¶¶ 216–17). In addition, AQS representatives acknowledged that its multilateral anonymous platform "attract[ed] unstable supply," leading to "excessive recalls" and re-rates. (ECF No. 432-13 at 2). Defendants cite the declaration of a former employee of Och Ziff, a stock lender and borrower, as evidence that hedge funds value "the stability of the stock loan" more than "the price or rate." (ECF No. 432-6 at 3 ¶ 11).

c. SL-x

In early 2011, several alumni of SecFinex created SL-x Markets, which set out to "establish itself as a leading wholesale electronic stock lending platform" that would "evolve the current bilateral OTC market structure of stock lending into a centrally cleared electronic platform[.]" (ECF No. 414-63 at 23, 32–33). SL-x had a "[d]ealer focused" business model that did "not challenge [the] current dynamics of prime brokers' relationships with agent lenders and

customers[,]" but did seek the backing of a "core consortium" of the top three-to-five prime brokers. (Id. at 30). SL-x planned to target initially "easy-to-borrow" stocks, with Depository Trust & Clearing Corporation as the first-choice CCP. (Id. at 31).

Some of the Prime Broker Defendants initially reacted positively to SL-x's concept. (ECF Nos. 414-65 at 2; 414-66 at 2; 414-67 at 2). Plaintiffs contend that ultimately, however, the Prime Broker Defendants "boycotted SL-x because they feared it could transform to an anonymous all-to-all platform." (ECF No. 412 at 32). Credit Suisse worried that SL-x would displace prime brokers from "the middle of the transition flow[,]" and elected "not [to] commit" to SL-x. (ECF No. 414-69 at 2, 5). After several discussions among themselves, JPMorgan, Morgan Stanley, Goldman Sachs, and Credit Suisse were "all on the same page" about not using SL-x. (ECF No. 414-70 at 2; see generally ECF No. 414-73). The Prime Broker Defendants told SL-x to "directly approach EquiLend management[,]" i.e., to negotiate with them as a group, rather than individually. (ECF Nos. 414-71 at 2; 414-72 at 5–6). The Prime Broker Defendants also wanted to orchestrate a joint venture "structure where [broker-]dealers keep control over pricing and [could] do a revenue share on flow going through the [SL-x] platform." (ECF No. 414-73 at 2). Ultimately, the Prime Broker Defendants were "unanimous in not seeing much benefit in the SL[-]x proposal[,]" and in wanting any industry advances to "be achieved from within EquiLend." (ECF Nos. 414-77 at 2; 414-23 at 3). By September 2014, SL-x had shut down, much to the satisfaction of the Prime Broker Defendants, who were "[g]lad" to have "stood firm" against SL-x. (ECF No. 414-78 at 2).

Defendants respond that SL-x's own Chairman testified that Defendants did not boycott SL-x, which never established "an operational platform in the United States" nor obtained

regulatory approval to do so. (ECF Nos. 432-17 at 76–77; 432-18 at 165; 432-19 at 172–76). Defendants maintain that they appropriately declined SL-x's invitation to evaluate a transaction between SL-x and EquiLend, as opposed to a "[d]e novo consortium formation." (ECF Nos. 432-22 at 7; 431 at 18).

d. Data Explorers

Following its inception in 2002, Data Explorers provided stock lending data, "providing transparency and benchmarking to one of the last obscure frontiers in financial markets." (ECF No. 414-81 at 5; see ECF No. 414-82 at 102–03). Goldman Sachs refused to send Data Explorers any client data, aiming to "squash it" because there was "no upside to [Goldman Sachs] being involved in making the stock borrow market more transparent." (ECF No. 414-83 at 2). Other Prime Broker Defendants similarly discouraged engagement with Data Explorers. (See ECF Nos. 414-84 (Morgan Stanley stating "we shouldn't be encouraging [hedge funds] to participate in Data Ex[plorers]"); 414-85 at 130 (Credit Suisse minimizing data shared with Data Explorers); 414-86 at 2–3 (noting that Goldman Sachs, JPMorgan, and other prime brokers agreed to "push back" on Data Explorers)).

Instead, the Prime Broker Defendants sought to "[r]emove the need for [Data Explorers'] hedge fund product" by "[d]ominating the hedge fund space and at the same time discredit/provide [an] alternative to" Data Explorer's product. (ECF No. 414-88 at 3). In December 2010, EquiLend's board, in response to Data Explorers, "agreed to develop the capability to capture a broad range of lending performance data." (ECF No. 414-89 at 8). By January 2011, the Prime Broker Defendants formed a "Market Data Subcommittee" comprised of EquiLend's owners "to discuss features, benefits and risks of EquiLend producing market data."

(ECF No. 414-91 at 2). The aim was to create "a data product that" all the Prime Broker Defendants would use and thus "all be in a line as to how that would be used." (ECF No. 414-92 at 221–22). As a result of convincing all prime brokers not to give their data to Data Explorers, the Prime Broker Defendants anticipated that "Data Explorers will no longer be representative of the market, and people will (have to) migrate to using EquiLend." (ECF No. 414-93 at 2).

In 2012, Markit, a financial services firm majority-owned by broker-dealers, including the Prime Broker Defendants, acquired Data Explorers, following which Data Explorers has not offered any data product showing market-wide transparency. (ECF No. 414-95 at 29; see ECF No. 412 at 36).

Defendants dispute that they conspired to "kill" the Data Explorers data aggregation service, noting that, by 2012, Data Explorers was the "Market Leader in the Provision of Data to the $30 Billion Securities Lending Market[,]" and counted as clients "all major custodian banks, all of the top 20 Agent Lenders, and 20 of the top 20 Prime Brokers." (ECF Nos. 432-24 at 187, 189; 432-24 at 44–45; see ECF No. 431 at 19). They also dispute that any Prime Broker Defendant ceased providing data to Data Explorers during the alleged conspiracy. (ECF No. 432-24 at 127–28).

e. Efforts to Preserve Bilateral Trading Model

Plaintiffs summarize additional common evidence that they will use to prove that Defendants conspired through at least 2016 to eliminate the threats from AQS, SL-x, and central clearing and to preserve a "bilateral" trading model. (ECF No. 412 at 36). Plaintiffs point to the announcement by the United States Federal Reserve Bank that it would substantially implement the "Basel III" regulatory framework, which would permit financial institutions to characterize

cleared stock loan transactions as less risky than OTC stock loan transactions, such that the Prime Broker Defendants would need to allocate less capital for the former than for the latter. (ECF No. 414-99 at 13). Plaintiffs contend that this shift "gave new life to AQS," as it worked with the OCC to implement a clearing platform. (ECF No. 412 at 37).

In response, however, the Prime Broker Defendants agreed that, were regulators to require central clearing, "it should be done within EquiLend and be under the owners['] control[.]" (ECF No. 414-7 at 375). They resolved that any CCP with which EquiLend would partner could not "have the attributes of an exchange" and must "[a]void disintermediation" and instead "maintain [the] bilateral market[.]" (ECF No. 414-100 at 4). The Prime Broker Defendants subsequently memorialized this approach in "Core Principles" they adopted at a CCP Working Group meeting in March 2015, agreeing to maintain a bilateral model and push back against "new entrants" like AQS and SL-x that "were proposing other things." (ECF Nos. 414-8 at 5–9; 414-7 at 413–14).

Plaintiffs assert that the Prime Broker Defendants' boycott forced AQS to look for a buyer. (ECF No. 412 at 38). OCC was "very interested" in AQS, but withdrew following meetings with the Prime Broker Defendants, which "owned" and exercised influence over the OCC. (ECF Nos. 414-104 at 42, 81; 414-105 at 2; 414-107 at 2). Ultimately, after discussion among the Prime Broker Defendants, EquiLend acquired certain of AQS's assets, and licensed back to OCC AQS's middle office technology for $5 million per year for five years. (ECF Nos. 414-104 at 122–23; 414-113 at 3; 414-114 at 2). Plaintiffs also contend that the Prime Broker Defendants used OCC "as a tool . . . to prevent AQS's technology from falling outside of their control." (ECF No. 412 at 39). For example, the Prime Broker Defendants planned to establish "[d]irect connectivity" between

EquiLend and OCC that would create "a universal gateway for all trades" from any source to flow to the OCC. (ECF Nos. 414-119 at 2; 414-120 at 3; 414-121 at 6; 414-123 at 9). Plaintiffs assert that "[n]o independent companies offering multilateral trading platforms have entered the [stock loan] market since the Gateway was implemented." (ECF No. 412 at 40).

3. Plaintiffs' Model of Class-wide Impact

In the Motion, Plaintiffs ask the Court to certify, under Rule 23(b)(3), the following class:

> All persons and entities who, directly or through an agent, entered into at least 100 U.S. Stock Loan Transactions[6] as a borrower from the prime brokerage businesses of the U.S.-based entities of the Prime Broker Defendants, or at least 100 U.S. Stock Loan Transactions as a lender of Hard-to-Borrow stock[7] to the U.S.-based entities of the Prime Broker Defendants, from January 1, 2012 until February 22, 2021 (the "Class Period").

(ECF No. 412 at 13–14 (the "Proposed Class")). Plaintiffs exclude from the Proposed Class:

> Defendants,[8] as well as Citadel LLC, Two Sigma Investments, PDT Partners, Renaissance Technologies LLC, TGS Management, Voloridge Investment

[6] Plaintiffs define a "U.S. Stock Loan Transaction" as "a daily position involving the lending or borrowing of a stock listed on the NYSE, NYSE American, NASDAQ, NYSE Arca, or Bats exchanges, according to the CRSP U.S. Stock Database, at a Loan Cost that is positive on the date when the loan or borrow is initiated, except for any transaction made under an exclusive contract (i.e., contracts where the lender offers inventory to a broker dealer for a flat fee)." (ECF No. 412 at 14 n.10). Plaintiffs define "Loan Cost" as "the price of borrowing, reflected as an annualized rate, equivalent to either (1) for cash-collateralized transactions, the Federal Funds Open Rate, Overnight Bank Funding Rate, or other benchmark minus the rebate rate paid by the lender to the borrower; or (2) for non-cash collateralized transactions, the fee rate paid by the borrower to the lender." (Id.) Defendants do not dispute or offer an opposing definition (see ECF No. 431), so the Court adopts these definitions for purposes of the Motion.

[7] Plaintiffs define a "Hard-to-Borrow" as "one whose Loan Cost is more than 10 basis points above (1) for positions held prior to September 16, 2016, the Federal Funds Open Rate or (2) for positions held on or after September 16, 2016, the Overnight Bank Funding Rate." (ECF 412 n.11). Defendants do not dispute or offer an opposing definition (see ECF No. 431), so the Court adopts these definitions for purposes of the Motion.

[8] For purposes of the Proposed Class, "Defendant" "means any entity in which a Defendant or its parent, subsidiary, or wholly owned affiliate is a majority owner or holds a majority beneficial interest. Not included is any investment company or pooled investment fund (including mutual fund families, exchange-traded funds, fund of funds and hedge funds) in which any Defendant has or may have a direct or indirect interest, or as to which its affiliate may act as investment advisors, unless the Defendant or any of its affiliates is a majority owner or holds a majority beneficial interest in the fund. The term 'Defendant'

> Management, and the D.E. Shaw Group and their corporate parents, subsidiaries, and wholly owned affiliates, as well as any federal governmental entity, any judicial officer presiding over this action, and any juror assigned to this action.

(Id. at 14).

Plaintiffs also propose "two management subclasses" under Rule 23(d):

> The "End-User Subclass": All persons and entities within the class who, directly or through an agent, entered into at least 100 U.S. Stock Loan Transactions as a borrower from the prime brokerage businesses of the U.S.-based entities of the Prime Broker Defendants during the Class Period.
>
> The "Beneficial Owner Subclass": All persons and entities within the class who, directly or through an agent, entered into at least 100 U.S. Stock Loan Transactions as a lender of Hard-to-Borrow stock to the U.S-based entities of the Prime Broker Defendants during the Class Period.

(Id.) Plaintiffs rely on Dr. Zhu's Report to show that all or virtually all Class Members are harmed by the lack of central clearing resulting from Defendants' anti-competitive conduct preventing the existence of an anonymous multilateral trading platform. (Id. at 42; 414-9 at 15).

a. Central Clearing

In a stock loan transaction, which presently does not have a central clearing mechanism, "the two parties need to continue to monitor and manage the transaction until the trade is unwound[,]" and need to know each other's identities to monitor default risk, thus impeding anonymous trading. (ECF No. 414-9 at 19–20 ¶ 49). "[T]he most widely adopted method for managing an ongoing contract exposure is a clearinghouse," or "central counterparty (CCP)." (Id. at 20 ¶ 50). Dr. Zhu explains that, if a stock loan transaction were centrally cleared, the CCP would become "the official counterparty" to the borrower and the lender, and would "reduce[]

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does not encompass a Defendant acting as an agent or on behalf of an unrelated entity." (ECF No. 412 at 14 n.12).

counterparty default risk through a variety of safeguards, including margin and default fund contributions." (Id.) Dr. Zhu posits that, "[b]arring exceptional circumstances, counterparty default risk is no longer a concern once a CCP is involved[,]" such that "neither party to the trade needs to know the identity of the other side because the CCP insulates them from each other's potential default." (Id.) According to Dr. Zhu, the benefits of central clearing of stock loan transactions include: "(1) the virtual elimination of counterparty default risk[;] (2) access to economies of scale for a wide variety of market participants[;] (3) an expansion of trading strategies and possibilities[;] and (4) improved risk-weighting on the banks' balance sheets." (Id. at 20–26 ¶¶ 51–62). In support of his theory, Dr. Zhu discusses evidence of "the positive roles CCPs played in capital markets in Europe and the United States as early as the 19th century[,]" including for exchange-traded futures contracts and repurchase agreements. (Id. at 27–31 ¶¶ 65–76).

b. Multilateral Trading Mechanisms

Dr. Zhu's Report describes multilateral trading mechanisms as one "in which an investor can get multiple [] competing bids or offers simultaneously," and a multilateral platform as a "trading venue or platform that offers multilateral trading." (ECF No. 414-9 at 32 ¶ 81). Dr. Zhu opines that anonymous "all-to-all" trading, or anonymous multilateral trading, would have had marketwide impacts on the U.S. stock loan market no later than January 1, 2012, and therefore, "all or virtually all Class [M]embers were harmed by the conspiracy as of that date, if not earlier." (Id. at 36 ¶ 93). Dr. Zhu calculates why adopting anonymous multilateral trading in the U.S. stock lending market would have made economic sense (id. at 36–43 ¶¶ 94–115), and explains why such trading would have had wide adoption by January 2012. (Id. at 43–69 ¶¶ 116–82). For

example, he notes that by June 2010, the OCC was active in central clearing of stock loan transactions, in which some of the Prime Broker Defendants participated, and that by September 2008, European CCPs were exploring central clearing platforms for stock loans. (Id. at 45–52 ¶¶ 121–22, 127–41). In addition, in September 2009, the United States Securities and Exchange Commission held a roundtable on securities lending, one component of which focused on "Improving Securities Lending for the Benefit of Investors: Transparency; Electronic Platforms; Central Counterparties; Accountability." (Id. at 57 ¶ 156). Dr. Zhu also anticipates that, by early 2009, centrally-cleared multilateral trading would have been possible by early 2009, and "wide adoption" would have occurred by January 2012. (Id. at 69–95 ¶¶ 183–251). He explains that "[t]he likelihood of a favorable environment for anonymous multilateral platforms only became higher after the G20 meeting in September 2009, the passage of the Dodd-Frank Act in July 2010, and the publication of Basel III bank capital framework in December 2010, among other key events." (Id. at 96 ¶ 252).

c. Dr. Zhu's Economic Model

Plaintiffs rely on Dr. Zhu's economic model to provide "a framework to analyze how rational end-user traders and broker-dealers would react to the introduction of an anonymous multilateral trading platform" in the stock loan market. (ECF No. 412 at 42). Dr. Zhu contends that, "[r]egardless of which specific platforms successfully entered, and which specific protocols were used . . . , all or virtually all Class [M]embers would have benefited from the evolution of the market to one in which anonymous multilateral trading platforms were available." (ECF No. 414-9 at 96 ¶ 252). He notes that, because Defendants' conspiracy was "in effect from the early 2000s through the present[,] . . . there is no pure 'before/after' study that can be done

because there is no 'before' and no 'after[,]" and, as a result, his "opinions are grounded in three principal approaches." (Id. at 96 ¶ 253). First, he applies to the stock loan market the economic search model that he developed in his research, developing "reasonable estimates for the inputs and parameters" that "indicate[] that all Class members would benefit from the introduction of anonymous multilateral trading, whether those Class members utilized the platform(s) or not." (Id. at 96 ¶ 254). He characterizes his economic search model as "conservative" because "the hypothetical platform is not anonymous, [and] the dealers serve as intermediaries on every trade." (Id. at 97–98 ¶ 259). Were the platform anonymous, Dr. Zhu hypothesizes that "class members could also provide bids and offers on the platform, and therefore realize even greater benefits." (Id.) His economic model is also conservative because it "examines what happens at an interim step during the transition between when the platform is first introduced and when an economic equilibrium is ultimately reached[,]" such that the spreads and prices in his model are different from "the prices specific [C]lass members would pay after the stock loan market completes its transition to a fully multilateral and competitive marketplace." (Id. at 98 ¶ 260). "Even under these conservative assumptions," Dr. Zhu's "model shows that all or virtually all [C]lass members benefit from the introduction of a platform, whether or not they actually use the platform in the but-for world and whether or not they are sophisticated in the real world[]" and even if only "a relatively small portion of [C]lass members begin using the platform." (Id. at 98 ¶ 261).

Second, Dr. Zhu employed a "yardstick" analysis, which looked at "related markets where a transition from OTC to anonymous multilateral trading took place, and where the conspiracy had no influence[,]" from which he concluded that, "[i]f marketwide benefits occurred in those

markets, it is likely that marketwide benefits would occur in the stock lending market as well." (ECF No. 414-9 at 96–97 ¶ 255). Dr. Zhu's yardstick analysis, which observed "the unambiguous trend of shifting toward electronic trading happened across all major asset classes from 2012 to 2015," found that "every comparable market . . . had marketwide benefits for all or virtually all traders in the market" from "the introduction of electronic trading platforms." (Id. at 96–97 ¶ 255, 107 ¶ 291; see id. at 108–20 ¶¶ 292–315).

Third, Dr. Zhu relied on the empirical analysis by Professors Asquith and Parak (see § II.A.4, infra), whose analysis of AQS "show[s] that even the modest success AQS achieved in the real world led to some benefits for Class members in the real world, which indicates that a non-boycotted platform would have been able to achieve even greater benefits." (ECF No. 414-9 at 97 ¶ 256). Dr. Zhu points specifically to Professors Asquith and Parak's finding "that from 2010 to 2013, 95.6% of borrower-side AQS notional activity and 81.1% of lender-side AQS notional activity took place at prices superior to prices offered in the OTC market." (Id. at 120 ¶ 317). Dr. Zhu concludes that this data demonstrates that, "even while subject to [Defendants'] boycott, AQS was able to provide benefits to the vast majority of all Class members[,]" and providing "compelling evidence that in a but-for world free of the conspiracy, a trading platform like AQS (or multiple such platforms) would provide benefits for all or virtually all Class members." (Id.)

Based on his economic search model, Dr. Zhu then summarizes the benefits of anonymous multilateral trading platform to all or virtually all Class members as including the following: (i) reduced trade execution costs due to pre-trade transparency and competition; (ii) lower operating costs; and (iii) lower prices and other benefits to trades that remain OTC. (ECF No. 414-9 at 120–28 ¶¶ 319–45). In addition, Dr. Zhu anticipates that an anonymous multilateral

trading platform in the stock loan market could lead to post-trade price transparency, which would also benefit virtually all Class members by providing "an important source of information regarding the 'going price' of the market." (Id. at 128–29 ¶¶ 346–47; see id. at 129–32 ¶¶ 348–60). Although not subject to empirical testing, Dr. Zhu opines from his review of comparable markets that price transparency in the stock loan market would benefit all Class members by putting them in a stronger and more-informed negotiating position. (Id. at 138 ¶ 377; see id. at 138–51 ¶¶ 378–401).

In summary, Dr. Zhu opines that:

> (1) "in the absence of the alleged conspiracy, anonymous multilateral trading platforms, including but not limited to the AQS platform, would have had marketwide impact by January 1, 2012, at the latest";
>
> (2) "Central clearing, which enables anonymous multilateral trading by eliminating counterparty risk, was widely recognized as inevitable following Lehman's default in 2008 [and] there were multiple central counterparties in the market willing and able to enter . . .";
>
> (3) "By January 1, 2012 at the latest, in the absence of the conspiracy, there would have been a sufficient scale of anonymous multilateral trading, including but not limited to trading on the AQS platform, to benefit all or virtually all Class members[, who] would have received better pricing, with borrowers paying less and lenders receiving more[, and] "significantly reduc[ing] transaction costs in the stock loan market and improved liquidity, to the benefit of all end users";
>
> (4) "Absent a conspiracy, the introduction of post-trade price transparency would also have provided benefits for all or virtually all Class members[,] . . . reduc[ing] transaction costs for end users and improv[ing] market liquidity."

(Id. at 151–52 ¶¶ 402–06).

4. Plaintiffs' Model of Class-wide Damages

Asquith & Parak opine that Defendants' conspiracy "cause[d] economic harm to all (or nearly all) Class Members through common sources of impact that can be analyzed on a class-

wide basis" and "quantified under a methodology that can be applied commonly across Class Members, without the need for individualized inquiry[.]" (ECF No. 414-10 at 11 ¶¶ 16–17; see id. at 159 ¶ 341) ("Defendants' Conspiracy created a common source of economic injury for Class Members of both Subclasses by preventing the widespread adoption of transparent, competitive, electronic platforms on which lenders and borrowers could have transacted directly with each other.")). They opine that the economic harm to the Class Members "proceeded from a common source: the artificial suppression during the Class Period of anonymous multilateral automated stock loan trading systems with transparent prices and centrally cleared trades [i.e., AQS and SL-x]. Absent the Conspiracy, stock loan transactions conducted on such platforms would have occurred at prices more favorable for members of both the End-User Subclass and the Beneficial Owner Subclass borrowing and lending [HTB] stocks." (Id. at 126 ¶ 246). As to GC stocks as well, "absent the Conspiracy, stock loan transactions conducted on anonymous multilateral trading systems with transparent prices and centrally cleared trades would have been conducted at more favorable loan prices for the End-User Subclass[.]" (Id. at 126 ¶ 247; see id. at 134–36 ¶¶ 270–73). In addition, they opine that even those Class Members who continued to transact OTC "would have received better prices than they received in the actual world of the Conspiracy[,]" as a result of the "price pressure" that the platforms placed on broker-dealers due to "increased transparency." (Id. at 141–42 ¶¶ 288–90). The timeline to achieve these benefits, given that "the features needed to support a multilateral electronic platform were present before 2010[, and] [t]he main missing ingredient was a link between Level 1 and Level 2[,]" Asquith & Parak anticipate that "the stock lending market would have an electronic platform with a large share of volume by January 1, 2012[,]" were it not for Defendants' Conspiracy. (Id. at 151 ¶ 317).

Using the stock loan transactions data produced by the Prime Broker Defendants, Asquith & Parak identified the loan costs incurred by the members of the End-User Subclass and Beneficial Owner Subclass in the actual world, and determined that there are thousands of members in each Subclass. (See ECF No. 414-10 at 14–15 ¶ 25).

a. End-User Subclass Damages

Prof. Pathak posits that short sellers on an electronic platform "would have borrowed their shares at a price below the Level 2 price they obtained in the OTC market." (ECF No. 414-10 at 155 ¶ 328). He calculates a short seller's damage on each loan, for non-sponsored activity,[9] as the amount of the loan times the difference between the loan price the Prime Broker Defendants were charging borrowers (P_2) and the but-for world price ($P_{p,ss}$). (See id. at 133 ¶ 262, 155 ¶ 328). For sponsored activity, Prof. Pathak calculates a short seller's damage on a loan as the difference between P_2 and the but-for world price of sponsored trades ($P_{p,ss,sponsored}$). (See id. at 155 ¶ 328). To calculate the total damages for a short seller, non-sponsored or sponsored, Prof. Pathak multiples the difference by the total amount of the borrowing activity at Level 2, to calculate Q_2. (See id.)

Because of differences in the platform price, damages may differ between HTB and GC scenarios, for which Prof. Pathak provides alternative formulae. (ECF No. 414-10 at 155–57 ¶¶ 329–34). Of the six inputs needed for the damages formulae, two inputs (Q_2 and P_2) appear in the Prime Broker Defendants' data, and four inputs (P_p, F_p, F_s, F_{OTC}) Prof. Pathak estimates using

[9] Where a market participant is not a direct member of the electronic platform, it will need "sponsored access" at an additional fee. (ECF No. 414-10 at 133 ¶ 267).

"a combination of empirical and theoretical studies, evidence from the record, evidence from AQS, and economic theory." (Id. at 157 ¶ 334; see id. at 159–247 ¶¶ 341–540).

b. Beneficial Owner Subclass Damages

Prof. Asquith posits that on an electronic platform, beneficial owners who lend HTB stock "would have lent their shares at a price above the Level 1 price they obtain in the OTC market." (ECF No. 414-10 at 157–58 ¶ 336). For non-sponsored trades, "[b]eneficial owners are damaged by the Conspiracy on each loan by the amount of the loan times the difference between the but-for world price $P_{p,bo}$ and P_2[.]" (Id.) For sponsored trades, "[b]eneficial owners are damaged by the Conspiracy on each loan by the amount of the loan times the difference between P_2 and the but-for world price of sponsored trades, $P_{p,bo,sponsored}$[.]" (Id.) To calculate the total damages for a beneficial owner, Prof. Asquith multiplies the price difference by "the total amount of borrowing activity by a beneficial owner at Level 1, Q_1." (Id.) Prof. Asquith uses the same six inputs, from the same sources, for these damages calculations as Prof. Pathak. (See id. at 158 ¶ 340).

c. Calculating Class-Wide Damages

Asquith & Parak contend "that, for each of [their] respective Subclasses, the damages suffered by Class Members can reliably be computers under a methodology common to Class Members, without the need for individualized inquiry." (ECF No. 414-10 at 159 ¶ 341). Specifically, Defendants' transaction data, "in conjunction with other common evidence, make it possible to reliably determine all the elements needed to compute damages for the End-User and Beneficial Owner Subclasses over the Class Period." (Id. at 159 ¶ 342). Asquith & Parak limited their analysis to only those stock loan transactions where: "(1) the stock involved [] a

transaction that was listed on a U.S. exchange and (2) the Prime Broker Defendant conducted the transaction through a U.S[.]-based entity of the Prime Broker Defendants." (Id. at 159 ¶ 343).

From Defendants' transaction data, Asquith & Parak are also able to determine whether a stock loan involved GC or HTB stocks on a given day, using "documentary evidence, deposition testimony, public empirical research, and an analysis of Level 1 loan costs in the Prime Broker Defendants' data[.]" (ECF No. 414-10 at 160 ¶ 344). To determine the price at which a stock loan would have been transacted in the but-for world (P_p), Asquith & Parak use their damages model as well as "publicly available research, an analysis of AQS data, and discovery material from the Prime Broker Defendants[.]" (Id. at 160 ¶ 345). To determine the platform fees—the single platform fee (F_p), sponsorship fee (F_s), and OTC fee (F_{OTC})—Asquith & Parak "use economic logic, the experience of AQS, and the academic literature on platforms to guide [their] choice of F_p and economic theory and evidence from the Prime Broker Defendants' own assessments of OTC trading costs to determine both F_s and F_{OTC}." (Id. at 160–61 ¶ 346; see id. at 133, 142 ¶¶ 266–67, 293).

Asquith & Parak conclude that "the detailed transactions data provided by the Prime Broker Defendants, coupled with publicly available data and research, provide a reliable basis for determining the damages suffered by Class Members through an objective methodology applied commonly across Class Members." (ECF No. 414-10 at 161 ¶ 347). They validate this conclusion by applying their methodology to "compute the damages incurred by each name Plaintiff on exemplar stock loans transacted with the Prime Broker Defendants during the Class Period." (Id. at 247 ¶ 541; see id. at 248–62 ¶¶ 542–67).

B. Procedural Background

On August 16, 2017, Plaintiffs filed the original Complaint, and on November 17, 2017, filed an Amended Complaint. (ECF Nos. 1; 73). On January 26, 2018, "Plaintiffs voluntarily dismiss[ed] their claims against Defendants Bank of America Corporation; Credit Suisse Group AG; The Goldman Sachs Group, Inc.; J.P. Morgan Chase & Co.; Morgan Stanley; Morgan Stanley Capital Management, LLC; and UBS Group AG, without prejudice[,]" and with tolling as of August 16, 2017. (ECF No. 105 at 3).

On September 27, 2018, Judge Failla issued IPERS I, which denied Defendants' motions to dismiss the Amended Complaint on the grounds that, inter alia, Plaintiffs standing and had adequately alleged that Defendants conspired to restrain trade in violation of the Sherman Antitrust Act, 15 U.S.C. § 1 (the "Sherman Act"). IPERS I, 340 F. Supp. 3d at 312–32. (ECF No. 123 at 34–77; see ECF Nos. 109; 106; 112–15). Pursuant to the Fourth Amended Civil Case Management Plan and Scheduling Order, the deadline for completing all fact discovery, including depositions, was October 16, 2020, and would not be extended absent "good cause." (ECF No. 298 at 3–4, 13 (the "Fourth CMP")).

On February 22, 2021, Plaintiffs filed their original motion to certify a class and appoint class counsel. (ECF No. 411 (the "Original Motion")). On March 26, 2021, "[i]n order to accommodate the parties' extended discovery schedule," and in response to the parties' request, Judge Failla permitted briefing on the Original Motion to be filed over a period of seven months but terminated the Original Motion and directed Plaintiffs to refile their notice of motion at the same time as their reply brief, on or before September 21, 2021. (ECF No. 417 at 1). By order dated April 6, 2021, Judge Failla further extended the briefing schedule, such that Defendants'

opposition was due on June 29, 2021, and Plaintiffs' reply was due on October 5, 2021. (ECF No. 428).

On June 29, 2021, Defendants filed their memorandum of law in opposition to the Motion, (ECF No. 431), with a supporting declaration and exhibits. (ECF Nos. 432 – 432-68). On October 5, 2021, Plaintiffs filed their reply memorandum of law in further support of the motion (ECF No. 469), with a supporting declaration and exhibits. (ECF Nos. 492 – 492-16)). The Court granted Defendants' request to file a sur-reply (ECF Nos. 473; 476), which they filed on November 22, 2021, with a supporting declaration and exhibits. (ECF Nos. 495; 496 – 496-73). The Court granted Plaintiffs' request to file a sur-sur-reply (ECF Nos. 478; 487; 502), which they filed on January 18, 2022, with a supporting declaration and exhibit. (ECF Nos. 513; 514 – 514-1).

By order dated February 25, 2022, Judge Failla preliminarily approved Plaintiffs' settlement agreement with Credit Suisse,[10] preliminarily certified a settlement class, appointed Plaintiffs as class representatives for the Settlement Class, and appointed Cohen Milstein and Quinn Emanuel as Co-Lead Counsel for the Settlement Class. (ECF No. 529).

On April 28, 2022, the Court heard a full day of oral argument from the parties, who provided lengthy presentations as part of their arguments. (ECF Nos. 535; 555-1; 556-1; 557-1; 559-1).

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[10] Credit Suisse Group AG, Credit Suisse AG, Credit Suisse Securities (USA) LLC, Credit Suisse First Boston Next Fund, Inc., and Credit Suisse Prime Securities Services (USA) LLC. (See ECF No. 529 at 2).

III. LEGAL STANDARDS

A. Class Certification

"The class action is 'an exception to the usual rule that litigation is conducted by and on behalf of the individual named parties only.'" Wal-Mart Stores, Inc. v. Dukes, 564 U.S. 338, 348 (2011) (quoting Califano v. Yamasaki, 442 U.S. 682, 700–01 (1979)). "To come within the exception, a party seeking to maintain a class action 'must affirmatively demonstrate [its] compliance' with [Federal Rule of Civil Procedure] 23." Comcast Corp. v. Behrend, 569 U.S. 27, 33 (2013) (quoting Dukes, 564 U.S. at 350).

A party moving for class certification under Rule 23 "must clear two hurdles." Martínek, 2022 WL 326320, at *3. First, Rule 23(a) requires the party to demonstrate that: "[i] the class is so numerous that joinder of all members is impracticable; [ii] there are questions of law or fact common to the class; [iii] the claims or defenses of the representative parties are typical of the claims or defenses of the class; and [iv] the representative parties will fairly and adequately protect the interests of the class." Fed. R. Civ. P. 23(a). The "numerosity, commonality, typicality, and adequacy[]" prerequisites under Rule 23(a),[11] "effectively limit the class claims to those fairly encompassed by the named plaintiff's claims." Dukes, 564 U.S. at 349 (citation omitted). In addition to the four prerequisites stated in Rule 23(a), "the Second Circuit also recognizes an implicit 'ascertainability' requirement, which commands that the proposed class be 'defined using objective criteria that establish a membership with definite boundaries." Martínek, 2022 WL 326320, at *3 (quoting In re Allergan PLC Sec. Litig., No. 18 Civ. 12089 (CM) (GWG), 2021 WL 4077942, at *5 (S.D.N.Y. Sept. 8, 2021) (citation omitted)). The ascertainability inquiry assesses

[11] Kurtz v. Costco Wholesale Corp., 818 F. App'x 57, 60 (2d Cir. 2020) (summary order).

whether the class is "sufficiently definite so that it is administratively feasible for the court to determine whether a particular individual is a member." Brecher v. Republic of Argentina, 806 F.3d 22, 24 (2d Cir. 2015) (citations omitted). Second, if the proposed class meets the Rule 23(a) prerequisites, the parties seeking certification must then show that "the action can be maintained under Rule 23(b)(1), (2), or (3)." In re Am. Int'l Grp., Inc. Sec. Litig., 689 F.3d 229, 238 (2d Cir. 2012). A party seeking certification under Rule 23(b)(3) "must establish that (i) 'questions of law or fact common to class members predominate over any questions affecting only individual members' and (ii) 'a class action is superior to other available methods for fairly and efficiently adjudicating the controversy.'" Martínek, 2022 WL 326320, at *4 (quoting Fed. R. Civ. P. 23(b)(3)).

The Second Circuit has afforded Rule 23 a "liberal rather than restrictive construction, and courts are to adopt a standard of flexibility[.]" Marisol A. v. Giuliani, 126 F.3d 372, 377 (2d Cir. 1997) (citation omitted). "The party seeking class certification bears the burden of showing, by a preponderance of the evidence, that the requirements of Rule 23 are met." Sykes I, 285 F.R.D. 279, 286 (S.D.N.Y. Sept. 4, 2012); see Lisnitzer v. Zucker, 983 F.3d 578, 588 (2d Cir. 2020) (explaining that a "district court may certify a class only after determining that each Rule 23 requirement is met"); see Martínek, 2022 WL 326320, at *5 (quoting In re Patriot Nat'l, Inc. Sec. Litig., 828 F. App'x 760, 764 (2d Cir. 2020)) (explaining that plaintiff moving for class certification "'bears the burden of satisfying Rule 23(a)'s threshold requirements"). A district court granting a class certification motion "must receive enough evidence, by affidavits, documents, or testimony, to be satisfied that each Rule 23 requirement has been met[,]" Shahriar v. Smith & Wollensky Rest. Grp., Inc., 659 F.3d 234, 251 (2d Cir. 2011),"notwithstanding the[] overlap with

merits issues, [and] must resolve material factual disputes relevant to each Rule 23 requirement . . . ." In re Aluminum Warehousing Antitrust Litig., 336 F.R.D. 5, 37 (S.D.N.Y. 2020) (quoting In re U.S. Foodservice Inc. Pricing Litig., 729 F.3d 108, 117 (2d Cir. 2013)).

The Second Circuit has instructed district courts to apply the following standards when adjudicating class certification motions:

> (1) a district judge may certify a class only after making determinations that each of the Rule 23 requirements has been met; (2) such determinations can be made only if the judge resolves factual disputes relevant to each rule 23 requirement and finds that whatever underlying facts are relevant to a particular Rule 23 requirement have been established and is persuaded to rule, based on the relevant facts and the applicable legal standard, that the requirement is met; (3) the obligation to make such determinations is not lessened by overlap between a Rule 23 requirement and a merits issue, even a merits issue that is identical with a Rule 23 requirement; (4) in making such determinations, a district judge should not assess any aspect of the merits unrelated to a Rule 23 requirement; and (5) a district judge has ample discretion to circumscribe both the extent of discovery concerning Rule 23 requirements and the extent of a hearing to determine whether such requirements are met in order to assure that a class certification motion does not become a pretext for a partial trial of the merits.

IPO Sec. Litig., 471 F.3d at 41. "Ultimately, the district court has broad discretion in deciding how and whether to certify a class, arising from its 'inherent power to manage and control pending litigation.'" In re Aluminum, 336 F.R.D. at 37 (quoting Myers v. Hertz Corp., 624 F.3d 537, 547 (2d Cir. 2010)).

B. Appointment of Class Counsel

"Rule 23 also provides guidance to courts concerning the appointment of class counsel[.]" Martínek, 2022 WL 326320, at *4. Rule 23(g)(1) requires courts to consider "(i) the work counsel has done in identifying or investigating potential claims in the action; (ii) counsel's experience in handling class actions, other complex litigation, and the type of claims asserted in the action; (iii)

counsel's knowledge of the applicable law; and (iv) the resources that counsel will commit to representing the class[.]" Fed. R. Civ. P. 23(g)(1)(A).

IV. DISCUSSION

Apart from numerosity, Defendants vigorously dispute whether Plaintiffs have satisfied the elements of Rule 23(a) and Rule 23(b)(3). (See ECF No. 431).

A. Rule 23(a)

1. Numerosity

Rule 23(a)(1) requires that a proposed class be "so numerous that joinder of all members is impracticable[.]" Fed. R. Civ. P. 23(a)(1). "Courts in this Circuit presume numerosity at 40 putative class members." Stewart v. Hudson Hall LLC, No. 20 Civ. 885 (PGG) (SLC), 2021 WL 6285227, at *7 (S.D.N.Y. Nov. 29, 2021). Courts do not, however, require the moving party to "provide a precise quantification of their class, since a court may make common sense assumptions to support a finding of numerosity[.]" Lea v. Tal Educ. Grp., No. 18 Civ. 5480 (KHP), 2021 WL 5578665, at *5 (S.D.N.Y. Nov. 30, 2021) (citation omitted).

Defendants do not contest Plaintiffs' assertion that "there are thousands of members of the [P]roposed [C]lass." (ECF No. 412 at 18 (citing ECF No. 414-10 at 14–15 ¶ 25); see generally ECF No. 431). The Court finds that Plaintiffs have adequately established that the Proposed Class will consist of at least "hundreds, if not thousands, of members[,]" and therefore have met the numerosity requirement. Sykes I, 285 F.R.D. at 289.

2. Commonality

Rule 23(a)(2) requires that there be "questions of law or fact common to the class[.]" Fed. R. Civ. P. 23(a)(2). "Commonality does not require absolute uniformity within the class[.]" Casale

v. Kelly, 257 F.R.D. 396, 412 (S.D.N.Y. 2009). Rather, "[t]he commonality requirement 'simply requires that there be issues whose resolution will affect all or a significant number of the putative class members.'" Martínek, 2022 WL 325320, at *5 (quoting Johnson v. Nextel Commc'ns Inc., 780 F.3d 128, 137 (2d Cir. 2015)). Commonality exists for purposes of Rule 23(a)(2) "if there is a common issue that 'drive[s] the resolution of the litigation' such that 'determination of its truth or falsity will resolve an issue that is central to the validity of each one of the claims in one stroke.'" Sykes II, 780 F.3d at 84 (quoting Dukes, 564 U.S. at 350). The Supreme Court has recognized that, "for purposes of Rule 23(a)(2), even a single common question will do[.]" Dukes, 564 U.S. at 359 (citation omitted). "Because 'the predominance criterion is far more demanding' than the commonality requirement, when plaintiffs move for certification of a class pursuant to Rule 23(b)(3), 'Rule 23(a)(2)'s commonality requirement is subsumed under, or superseded by, the more stringent Rule 23(b)(3) requirement' of predominance." Dial Corp. v. News Corp., 314 F.R.D. 108, 113 (S.D.N.Y. 2015) (quoting Amchem Prods. Inc. v. Windsor, 521 U.S. 591, 609, 624 (1997)).

Plaintiffs contend that issues are common to the Proposed Class and capable of resolution through common proof include: (i) Defendants' liability under the Sherman Act; (ii) Defendants conspired to block and boycott disintermediation threats; (iii) Defendants engaged in continuing efforts to preserve a bilateral trading model; (iv) Defendants' conspiracy imposed class-wide impact on the Proposed Class; and (v) Plaintiffs can measure their damages through a common methodology. (ECF No. 412 at 22–55; see ECF No. 73 ¶ 368). The parties then combine their arguments for and against commonality under Rule 23(a)(2) with their arguments for and against predominance under Rule 23(b)(3). (See ECF Nos. 412 at 18, 22–40; 431 at 20–46).

The Court finds that Plaintiffs have shown that, at a minimum, the question whether Defendants engaged in an antitrust conspiracy that caused class-wide impact and damages is a question "common to the class and capable of resolution through common proof," and, accordingly, "Plaintiffs have met the requirements of Rule 23(a)(2)." Dial Corp., 314 F.R.D. at 113; see In re Term Commodities Cotton Futures Litig., No. 12 Civ. 5126 (ALC) (KNF), 2022 WL 485005, at *5 (S.D.N.Y. Feb. 17, 2022) (finding that plaintiffs' satisfied commonality where defendants' conduct in causing "squeeze" of the entire market affecting all traders was "one manipulative scheme"); see In re Digital Music Antitrust Litig., 321 F.R.D. 64, 86 (S.D.N.Y. 2017) (finding that, in antitrust action, where "Plaintiffs' alleged injuries derive[d] from a uniform course of conduct by the Defendants[,]" commonality requirement of Rule 23(a)(2) was satisfied); see also Sykes I, 258 F.R.D. at 290 (finding that common questions of law and fact regarding defendants' "course of conduct" satisfied commonality requirement of Rule 23(a)(2)).

The Court analyzes below whether these common questions, particularly class-wide impact and a class-wide damages methodology, will predominate. (See § IV.B.1, supra). See Term Commodities, 2022 WL 485005, at *4–6 (combining analysis of commonality under Rule 23(a)(2) and predominance under Rule 23(b)(3)).

3. Typicality

Rule 23(a)(3) requires that "the claims or defenses of the representative parties are typical of the claims or defenses of the class." Fed. R. Civ. P. 23(a)(3). Courts in this District recognize that "[t]he typicality requirement is 'not demanding.'" Villella v. Chem & Mining Co. of Chile Inc., 333 F.R.D. 39, 55 (S.D.N.Y. 2019) (quoting In re MF Glob. Holdings Ltd. Inv. Litig., 310 F.R.D. 230, 236 (S.D.N.Y. 2015)). "Typicality 'does not require factual identity between the named

plaintiffs and the class members, only that the disputed issues of law or fact occupy essentially the same degree of centrality to the named plaintiff's claim as to that of other members of the proposed class.'" Martínek, 2022 WL 326320, at *6 (quoting MF Glob. Holdings, 310 F.R.D. at 236). Rather, "[t]he typicality requirement is satisfied where 'each class member's claim arises from the same course of events and each class member makes similar legal arguments to prove the defendant's liability.'" Digital Music, 321 F.R.D. at 87 (quoting In re Flag Telecom Holdings, Ltd. Sec. Litig., 574 F.3d 29, 35 (2d Cir. 2009) (citation omitted)); see In re NYSE Specialists Sec. Litig., 260 F.R.D. 55, 70 (S.D.N.Y. 2009) (same) (citation omitted). Courts have "liberally construed" the typicality requirement under Rule 23(a)(3). Digital Music, 321 F.R.D. at 87.

In the antitrust context, "plaintiffs and all class members alleging the same antitrust violations by [] defendants[]" will establish typicality. In re Playmobil Antitrust Litig., 35 F. Supp. 2d 231, 241 (E.D.N.Y. 1998) (citations omitted); see also In re Dynamic Random Access Memory (DRAM) Antitrust Litig., No. 2 MD 1486 (PJH), 2006 WL 1530166, at *5 (N.D. Cal. June 5, 2006) (collecting cases "recogniz[ing] that, in conspiracy cases, plaintiffs' claims are typical of the class because proof of their section 1 claim will depend on proof of violation by defendants, and not on the individual positioning of the plaintiff"). Still, "[w]hile it is settled that the mere existence of individualized factual questions with respect to the class representative's claim will not bar class certification, class certification is inappropriate where a putative class representative is subject to unique defenses which threaten to become the focus of the litigation[.]" Gary Plastic Packaging Corp. v. Merrill Lynch, Pierce, Fenner & Smith, Inc., 903 F.2d 176, 180 (2d Cir. 1990), abrogated on other grounds, Microsoft Corp. v. Baker, 137 U.S. 1702 (2017). Courts thus seek to

avoid the "danger that absent class members will suffer if their representative is preoccupied with defenses unique to it." Gary Plastic, 903 F.2d at 180.

Plaintiffs argue that their claims are typical of the Proposed Class (and their respective Subclasses) because each of them "entered into stock lending transactions with the Prime Broker Defendants during the Class Period, and each brings the same claims alleging that it was harmed in those dealings by Defendants' conspiracy." (ECF No. 412 at 19). Defendants argue that none of the Plaintiffs is a typical representative of the End-User Subclass (ECF No. 431 at 12, see id. at 55–56). Specifically, Defendants contend that neither SCERA, which "lent large quantities of stock to Defendants[,]" nor Torus, which "is a tiny proprietary trading fund that never had an account with any Defendant's prime brokerage businesses[]" and that paid less in shorting fees than the fixed fees for joining an electronic platform, are typical of the End-User Subclass. (Id. at 55–56). Plaintiffs respond that courts have rejected the purported "seller-purchaser conflict" as a basis to deny class certification, and note that Defendants' own data shows that Torus borrowed stock from two Prime Broker Defendants, Goldman Sachs and Bank of America. (ECF No. 469 at 41). Plaintiffs add that "[i]t is irrelevant that Torus is a proprietary trading fund[,]" as Defendants have recognized that proprietary traders are typical end-users, and, in any event, Torus has alleged that Defendants' conspiracy harmed Torus "the same way it harmed other borrowers." (ECF No. 469 at 41; see also ECF Nos. 414-151 at 7; 555-1 at 3).

The Court finds that Plaintiffs have established that their claims are typical of the Proposed Class. First, Plaintiffs will prove the existence of a conspiracy and their damages in the same way, by: (a) establishing the conspiracy existed through evidence that is common to each member; (b) establishing class-wide impact using Prof. Zhu's economic model; and (c) applying

Asquith & Parak's damages methodology to calculate class-wide antitrust damages. (ECF No. 412 at 20–56). Because the Plaintiffs' claims "arise from [the] same course of conduct that gives rise to claims of the other class members, [that] are based on the same legal theory, and [] the class members have allegedly been injured by the same course of conduct as that which allegedly injured the" Plaintiffs, typicality is satisfied. In re Oxford Health Plans, Inc., 191 F.R.D. 369, 375 (S.D.N.Y. 2000) (citing In re Drexel Burnham Lambert Grp.. Inc., 960 F.2d 285, 291 (2d Cir. 1992)).

Second, SCERA's status as both a stock lender and stock borrower does not render it atypical for class certification purposes. Courts have recognized that a class may include both purchasers and sellers, and the End-User Subclass may well include other entities that both lent and borrowed stock, of whom SCERA would be typical. See, e.g., Oxford Health, 191 F.R.D. at 375, 377–78; see In re Vivendi Universal, S.A., 242 F.R.D. 76, 86 n.5 (S.D.N.Y. 2007) (collecting cases where courts found that representative's status as purchaser and seller did not defeat typicality). Asquith & Parak also use SCERA as an example of how to calculate the excess loan costs stock borrowers paid due to Defendants' conspiracy. (ECF No. 414-10 at 221–22 ¶ 500). Furthermore, Defendants' expert, Prof. Hendershott, acknowledges that SCERA is an employee retirement association that engaged in short selling and was a client of Credit Suisse until December 2019—implying that SCERA does meet the definition of a member of the End-User Subclass during the Class Period. (ECF No. 432-2 at 104 ¶ 206). Defendants have simply not shown that SCERA will be subject to unique defenses that would "become the 'focus of the litigation' if the Court were to grant Plaintiffs' [M]otion[.]" Digital Music, 321 F.R.D. at 88 (denying class certification where some proposed class members were subject to counterclaims to which proposed class representatives were not); see NYSE Specialists, 260 F.R.D. at 72–73

(finding typicality satisfied where defendants presented "no evidence" that class representatives "allege[d] different wrongful conduct or [were] subject to unique defenses that render[ed] them atypical of other class members[]"). Because the typicality "test, ultimately, is whether the class representative will promote the interests of the class as [it] protects [its] own[,]" the Court finds that SCERA's dual status as a member of both Subclasses does not defeat typicality. In re Baldwin-United Corp. Litig., 122 F.R.D. 424, 428 (S.D.N.Y. 1986); see Term Commodities, 2022 WL 485005, at *6 (finding that potential defenses were "not so core as to become the focus of the litigation") (citation omitted).

Finally, Defendants' counsel acknowledged during oral argument that "Torus was dropped [as] a customer by Goldman Sachs"—but Goldman Sachs could not have "dropped" Torus without Torus first having been a client. (ECF No. 559-1 at 175). Plaintiffs have also provided evidence that Torus was a client of Goldman Sachs and Bank of America. (ECF Nos. 414-10 at 49 ¶ 111; 555-1 at 3; 559-1 at 209). And, regardless of the amount of shorting fees Torus paid, Defendants do not dispute that Torus engaged in a sufficient number of transactions to meet the definition of the Proposed Class. In any event, Defendants' argument that Torus may be subject to individual defenses based on its trading strategy fails for the same reasons as the Court explained as to SCERA. (ECF No. 559-1 at 168, 173–75). See Oxford Health, 191 F.R.D. at 376 (rejecting argument that class representative's trading strategy rendered it atypical of class).

4. Adequacy of Representation

Rule 23(a)(4) requires that "the representative parties will fairly and adequately protect the interests of the class." Fed. R. Civ. P. 23(a)(4). "Adequacy has two components: 'First, class counsel must be qualified, experienced, and generally able to conduct the litigation,' and

'[s]econd, the class members must not have interests that are antagonistic to one another.'" Hawaii Structural Ironworkers Pension Tr. Fund, Inc. v. AMC Ent. Holdings, Inc., 338 F.R.D. 205, 212 (S.D.N.Y. 2021) (quoting Drexel, 960 F.2d at 291); see Denney v. Deutsche Bank AG, 443 F.3d 253, 268 (2d Cir. 2006) ("Adequacy is twofold: the proposed class representative must have an interest in vigorously pursuing the claims of the class, and must have no interests antagonistic to the interests of other class members.").

"The adequacy inquiry under Rule 23(a)(4) serves to uncover conflicts of interest between named parties and the class they seek to represent." Amchem, 521 U.S. at 625. Even if a conflict exists, it does not "necessarily defeat class certification—the conflict must be fundamental." Denney, 443 F.3d at 268 (internal quotation marks omitted). To be "fundamental," the "conflict must go to the 'very heart of the litigation[.]'" In re Literary Works in Elec. Databases Copyright Litig., 654 F.3d 242, 259 (2d Cir. 2011) (Straub, J., dissenting in part, concurring in part) (quoting Cent. States Se. & Sw. Areas Health & Welfare Fund v. Merck-Medco Managed Care, L.L.C., 504 F.3d 229, 246 (2d Cir. 2007)); see id. at 249 ("Not every conflict among subgroups of a class will prevent class certification—the conflict must be 'fundamental' to violate Rule 23(a)(4).") (citing Flag Telecom Holdings, 574 F.3d at 35). A "fundamental" conflict "exists when 'the interests of the class representative can be pursued only at the expense of the interests of all of the class members[,]'" Literary Works, at 654 F.3d at 259 (quoting 1 ALBA CONTE & HERBERT NEWBERG, NEWBERG ON CLASS ACTIONS, § 3.26 (4th ed. 2002)) and "may not be 'merely speculative or hypothetical.'" Literary Works, at 654 F.3d at 259 (quoting 5 JAMES WM. MOORE ET AL., MOORE'S FEDERAL PRACTICE, § 23.25[2][b][ii] (3d ed. 2011)). "Where such a conflict does exist, it can be cured by dividing the class into separate 'homogenous subclasses . . . with separate representation to

eliminate conflicting interests of counsel.'" Literary Works, at 654 F.3d at 249–50 (quoting Ortiz v. Fibreboard Corp., 527 U.S. 815, 856 (1999)); see Fed. R. Civ. P. 23(a)(5). Courts in this District have recognized that "denial of class certification on the grounds of inadequacy should only occur in the most extreme instances." AMC Holdings, 338 F.R.D. at 212.

Defendants argue that Plaintiffs have failed to show that "there are no fundamental conflicts of interest among proposed class members," and that they "will fairly and adequately protect the interests of the class." (ECF No. 431 at 46 (citations omitted)). Specifically, Defendants argue that (i) the Beneficial Owner Subclass and the End-User Subclass have irreconcilable "fundamentally conflicting interests," (ii) the Proposed Class includes members who would have profited from the Conspiracy, (iii) the decision of the seven hedge funds to opt out shows that Plaintiffs have made decisions that conflict with the interests of the Proposed Class, and (iv) SCERA and Torus are inadequate and atypical. (ECF No. 431 at 46–56).

Defendants' arguments fail to undermine Plaintiffs' showing of adequacy. First, as discussed at length above, Plaintiffs "have raised claims typical of those of the other [C]lass [M]embers in that they arise due to" Defendants' Conspiracy to block a multilateral trading platform from succeeding in the stock lending market. NYSE Specialists, 260 F.R.D. at 73. (See, e.g., ECF Nos. 412 at 41; 73 at ¶¶ 10–12, 20–21, 34, 121). Similarly, whether they were a Beneficial Owner or an End-User, Plaintiffs allege the identical harm: "higher search costs and worse prices." (ECF No. 412 at 41; see ECF No. 53 ¶¶ 118–19, 328). Both Subclasses thus have a unified interest in proving that Defendants' Conspiracy adversely impacted the stock lending market, which they will attempt to show through, among other common evidence, Dr. Zhu's opinions. (ECF No. 412 at 43–44). See NYSE Specialists, 260 F.R.D. at 73 (finding that conflicts

did not defeat adequacy where lead plaintiffs "assert[ed] identical harm, regardless of whether the violative trades involved purchases or sales of stock").

Second, as Plaintiffs correctly point out, courts within the Second Circuit (and elsewhere) have found "that, where plaintiffs allege a conspiracy by intermediaries to increase spreads [that] harmed buyers and sellers, no fundamental conflicts prevents both from being part of the same class . . . ." (ECF No. 469 at 35; see id. at 39 n.50). For example, in In re NASDAQ Market-Makers Antitrust Litigation, the court rejected the argument that the presence of both purchasers and sellers created an inherent conflict in a proposed antitrust class, because the alleged conspiracy adversely impacted all plaintiffs, whether they bought or sold, and thus each buyer and seller had "an interest in proving the existence of Defendants' conspiracy, and in securing declaratory and injunctive relief to bring an end to that conspiracy." 169 F.R.D. 493, 513 (S.D.N.Y. 1996). In addition, the court noted, "every buyer and seller ha[d] the same interest in maximizing the aggregate amount of classwide damages." Id. The same is true here: Defendants' conspiracy harmed both Subclasses, who have a mutual incentive to maximize their recovery from Defendants. See Term Commodities, 2022 WL 485005, at *5 (finding that presence of "diverging economic interests, namely long traders, short traders, and hedgers[]" did not defeat class certification); see also NYSE Specialists, 260 F.R.D. at 73 (finding that no "palpable" conflict outweighed the substantial interest of class comprised of purchasers and sellers in proving defendants' liability for manipulative stock trading); In re Auction Houses Antitrust Litig., 193 F.R.D. 162, 165 (S.D.N.Y. 2000) (rejecting argument that fundamental conflicts precluded certification of class of "buyers and sellers who have used defendants' services" and were "impacted by the artificial inflation of both buyers' and sellers' commissions pursuant to the

conspiracy"); In re Sumitomo Copper Litig., 182 F.R.D. 85, 92 (S.D.N.Y 1998) (rejecting argument that presence of "in and out traders" in subclasses created conflict, because "it is settled in this Circuit that . . . the presence of both purchasers and sellers . . . will not defeat class certification when plaintiffs allege that the same unlawful course of conduct affected all members of the proposed class"). To the extent that Defendants project the possibility of conflict arising from the method of allocation in Plaintiffs' damages model (see ECF Nos. 431 at 48–49; 557-1 at 6), "that possibility does not preclude class certification." NASDAQ, 169 F.R.D. at 514; see Sjunde AP-Fonden v. Gen. Elec. Co., No. 17 Civ. 8457 (JMF), 2022 WL 1078460, at *3 (S.D.N.Y. Apr. 11, 2022) (noting that "'putative intra-class conflicts'" arising from different transaction dates that "'could potentially motivate different class members to argue that the securities were relatively more or less inflated at different time periods, relate to damages and do not warrant denial of class certification'"); NYSE Specialists, 260 F.R.D. at 74 (explaining that potential "intra-class conflicts related to damages" did not preclude finding of adequacy); see also In re Gaming Lottery Sec. Litig., 58 F. Supp. 2d 62, 71 (2d Cir. 1999) (holding that, despite "real" conflict between "the in-and-out purchaser and other class members," conflict was not "sufficiently severe" to render representative plaintiff inadequate).

Third, Plaintiffs' evidence has shown, contrary to Defendants' argument, that "no class members 'profited' from Defendants' [C]onspiracy to deny them the ability to have [a] multilateral trading option[]." (Compare ECF No. 469 at 31 with ECF No. 431 at 54). For example, Dr. Zhu's model shows that implementing a multilateral trading platform in the U.S. stock lending market court reduces search costs and increases competition, to the benefit of all Class Members, (ECF No. 414-9 at 97–107 ¶¶ 258–89), while Asquith & Parak's damages model shows that all

Class Members paid elevated spreads because of Defendants' Conspiracy. (ECF No. 414-10 at 125–55 ¶¶ 245–326). To the extent that Defendants' hyperbole reflects an argument that there are some Class Members who suffered no damages, "district courts in this Circuit have certified classes that likely or certainly contained uninjured class members." In re Restasis (Cyclosporine Opthalmic Emulsion) Antitrust Litig., 335 F.R.D. 1, 16 (E.D.N.Y. 2020) (collecting cases). Indeed, "a class may be certified so long as a 'de minimis' number of class members were uninjured or, conversely, 'virtually all' class members were injured." Id. at 17 (quoting In re Rail Freight Fuel Surcharge Antitrust Litig., 292 F. Supp. 3d 14, 134–35 (D.D.C. 2017), aff'd, 934 F.3d 619 (D.C. Cir. 2019)). Plaintiffs have shown, through Asquith & Parak, that only 0.4% of the Beneficial Owner Subclass, and only 0.2% of the End-User Subclass might have been undamaged (ECF Nos. 469 at 34; 470-2 at 143–44 ¶¶ 344–46), numbers which are well below "'the outer limits of a de minimis number of uninjured class members[,]'" and therefore, do not undermine Plaintiffs' showing of adequacy. Restasis, 335 F.R.D. at 17 (quoting Rail Freight, 292 F. Supp. 3d at 137).

Fourth, contrary to Defendants' argument (ECF No. 431 at 55), the decision of seven hedge funds to opt out of the Proposed Class to avoid disclosure of their trading data and the concomitant risk of compromising "the confidentiality of their trading strategies[]" does not render Plaintiffs or their counsel inadequate. (ECF No. 559-1 at 73; see ECF Nos. 199 at 2–3; 264 at 2; see id. at n.3). Not only did the hedge funds' decision involve no statement about the merits of Plaintiffs' claims, but it also exemplifies Rule 23's protections at work: if a putative Class Member does not wish to participate in this action, for any reason, it has the right to opt out, and that is what the hedge funds did. See Fed. R. Civ. P. 23(c)(2)(B)(vi); see Neversink Gen. Store v. Mowi USA, LLC, No. 20 Civ. 9293 (PAE), 2021 WL 1930320, at *4 (S.D.N.Y. May 13, 2021)

(discussing "the safeguards provided by Rule 23 [to] guard against the impairment of class members' interests"). Tellingly, although Defendants notified members of the Proposed Class whose data has been produced, no additional Class Members have opted out. (ECF No. 469 at 40; see, e.g., ECF No. 279). While Plaintiffs' counsel might have mitigated the issue with more diplomacy and preemptive outreach, the event does not undermine counsel's adequacy to represent the Proposed Class.

Fifth, the fact that SCERA lent stock to Defendants does not render it an inadequate representative of the End-User Subclass. (ECF Nos. 431 at 55; 559-1 at 115). The Court has rebutted above Defendants' professed concern about the potential conflict between stock lenders and borrowers in the Proposed Class. (See § IV.A.3, supra). If anything, that SCERA has "a foot in both camps[,]" as Defendants describe it (ECF No. 559-1 at 115), underscores SCERA's ability to promote the interests of both Subclasses in proving Defendants' liability and maximizing recovery of damages. The Court similarly rejects Defendants' argument that Torus is "much too small to be a viable platform participant." (ECF No. 559-1 at 116). Torus was a prime brokerage customer of Defendants, exceeds the threshold number of transactions required to meet the definition of the Proposed Class, and would have embraced participation in "an exchange or a platform" for stock borrowing. (ECF No. 470-10 at 78; see ECF Nos. 470-2 at 22, ¶ 55; 555-1 at 3–4). As Prof. Zhu points out, to the extent Torus had a smaller shorting volume, Defendants' Conspiracy was the cause, and "in the but-for world, Torus' better access to borrows at better prices would increase its shorting volume." (ECF No. 470-1 at 120–21 ¶ 267; see id. at 121 n.287). In addition, the Torus testimony to which Defendants point to suggest Torus' lack of sufficient sophistication is that of a back-office administrator, not an executive or trader, and therefore,

does not detract from Torus' adequacy as a class representative. AMC Holdings, 338 F.R.D. at 213 (rejecting argument that representative plaintiff's testimony rendered it inadequate).

Finally, the Court finds that both Cohen Milstein and Quinn Emanuel are qualified to serve as co-lead class counsel based on "the work counsel has done . . . [,] [their] experience . . . [,] [their] knowledge of the applicable law[, and] resources that [they] will commit" to prosecuting this action on behalf of the Proposed Class. In re Air Cargo Shipping Servs. Antitrust Litig., No. 6 MD 1175 (JG) (VVP), 2014 WL 7882100, at *66 (E.D.N.Y. Oct. 15, 2014) (quoting criteria in Fed. R. Civ. P. 23(g)). Defendants do not meaningfully dispute that the firms satisfy these criteria, and based on the evidence Plaintiffs have submitted and the Court's observation of "the extensive and competent work [Cohen Milstein and Quinn Emanuel] have put into this case over the years, coupled with their ample experience in the relevant fields, the [C]ourt recommends that they be appointed counsel for the" Proposed Class. Id. (See ECF Nos. 414-135 – 414-149; 421; 421-1 – 421-11).

Accordingly, the Court respectfully recommends that Plaintiffs be appointed as representatives of the Proposed Class, and that Cohen Milstein and Quinn Emanuel be appointed as co-lead counsel.

5. Ascertainability

The Second Circuit's ascertainability requirement mandates that "a class must be 'sufficiently definite so that it is administratively feasible for the court to determine whether a particular individual is a member,' and must be 'defined by objective criteria that are administratively feasible,' such that 'identifying its members would not require a mini-hearing on the merits of each case.'" de Lacour v. Colgate-Palmolive Co., 338 F.R.D. 324, 334 (S.D.N.Y. 2021)

(quoting In re Petrobras Sec., 862 F.3d 250, 260 (2d Cir. 2017)); see also Martínek, No. 19 Civ. 8030 (KPF), 2022 WL 326320, at *3 (S.D.N.Y. Feb. 3, 2022) (noting additional class certification requirement of ascertainability under Second Circuit precedent).

Although neither party addresses this requirement in their briefing, the Court finds that it is satisfied here. The Proposed Class comprises investors who engaged in "at least 100 U.S. Stock Loan Transactions" either as a borrower or as a lender of Hard-to-Borrow Stock with the U.S.-based entities of the Prime Broker Defendants during the Class Period. (ECF No. 412 at 13–14). "These criteria . . . are clearly objective[,]" Petrobras, 862 F.3d at 269, "and sufficient to demonstrate that the class is ascertainable." Martínek, 2022 WL 326320, at *8 (analyzing and finding ascertainability was satisfied, notwithstanding parties' failure to address requirement); see Sykes I, 285 F.R.D. at 292–93 (finding ascertainability satisfied where class members were identifiable based on objective criteria) (citations omitted).

B. Rule 23(b)(3)

1. Predominance of Common Issues

Rule 23(b)(3)'s predominance element requires "that the questions of law or fact common to class members predominate over any questions affecting only individual members[.]" Fed. R. Civ. P. 23(b)(3). "The Rule 23(b)(3) predominance inquiry tests whether proposed classes are sufficiently cohesive to warrant adjudication by representation." Amchem, 521 U.S. at 623. "A court examining predominance must assess [i] 'the elements of the claims and defenses to be litigated,' [ii] 'whether generalized evidence could be offered to prove those elements on a class-wide basis or whether individualized proof will be needed to establish each class member's entitlement to relief,' and [iii] 'whether the common issues can profitably be tried

on a class[-]wide basis, or whether they will be overwhelmed by individual issues.'" Scott v. Chipotle Mexican Grill, Inc., 954 F.3d 502, 512 (2d Cir. 2020) (quoting Johnson, 780 F.3d at 138).

"This analysis is 'more qualitative than quantitative,' and must account for the nature and significance of the material common and individual issues in the case." Petrobras, 862 F.3d at 271 (quoting 2 WILLIAM B. RUBENSTEIN, NEWBERG ON CLASS ACTIONS, § 4:50, at 197 (5th ed. 2012) (citation omitted)). "Plaintiffs need not prove, however, that the legal or factual issues that predominate will be answered in their favor." Kurtz, 818 F. App'x at 61 (2d Cir. 2020) (summary order) (citing Amgen Inc. v. Conn. Ret. Plans & Tr. Funds, 568 U.S. 455, 468 (2013)).

To recover damages on their antitrust claim, Plaintiffs must prove: "(1) that [D]efendants violated the antitrust laws; (2) that the alleged violations caused [P]laintiffs to suffer some direct [antitrust] injury to their business or property; and (3) that the extent of this injury can be quantified with requisite precision." NASDAQ, 169 F.R.D. 493, 517 (S.D.N.Y. 1996) (quoting Zenith Radio Corp. v. Hazeltine Res., Inc., 395 U.S. 100, 114 n.9 (1969)); see Cordes & Co. Fin. Servs. v. A.G. Edwards & Sons, Inc., 502 F.3d 91, 105 (2d Cir. 2007) (listing three elements that antitrust plaintiffs seeking class certification must show can be established by common evidence); see Dial Corp., 314 F.R.D. at 114 (same). To succeed on the Motion, then, Plaintiffs bear the burden of establishing "that common proof will predominate at trial with respect to these three essential elements of antitrust liability." NASDAQ, 169 F.R.D. at 517.[12]

[12] Plaintiffs have also asserted an unjust enrichment claim (ECF No. 73 ¶¶ 395–97), but acknowledge that that claim "rises or falls with the antitrust claim," see IPERS, 340 F. Supp. 3d at 337, and argue that certification is warranted as to both claims for the same reasons. (ECF No. 412 at 17 n.19). Defendants do not dispute the similarity and do not separately address the unjust enrichment claim. (ECF No. 431). The Court similarly focuses on Plaintiffs' antitrust claim in analyzing the elements of Rule 23.

Plaintiffs contend that they have met the predominance requirement because they can prove by common evidence each of the elements of their antitrust claim, including the following: (i) Defendants' liability; (ii) class-wide impact of Defendants' Conspiracy; (iii) class-wide damages using Asquith & Parak's reliable methodology. (ECF No. 412 at 22–55).

Instead of disputing Plaintiffs' showing that they can prove Defendants' liability for antitrust conspiracy by common evidence (ECF No. 412 at 22–47), Defendants focus their attention on the ways in which, they believe, Plaintiffs cannot prove by common evidence that all or virtually all Class Members suffered an antitrust injury, and on the prevalence of individualized inquiries as to damages. (ECF No. 431 at 21–46). First, Defendants contend that Asquith & Parak's damages model is flawed due to: (i) the failure to account for differences between stock loans transactions conducted OTC as opposed to a platform; (ii) failure to show class-wide injury; (iii) the prevalence of Class Members who would not use a platform; and (iv) individualized inquires necessary in applying the model. (ECF No. 431 at 22–38). Second, Defendants also dispute Dr. Zhu's theory of class-wide impact. (ECF No. 431 at 4143). Third, Defendants contend that individualized issues arising from the Foreign Trade Antitrust Improvements Act ("FTAIA") also preclude predominance. (ECF No. 431 at 44).

The well-settled precedent "in this Circuit [holds] that factual differences in the amount of damages, date, size, or manner of purchase, the type of purchaser, the presence of both purchasers and sellers, and other such concerns will not defeat class action certification when plaintiffs allege that the same unlawful course of conduct affected all members of the proposed class." Sumitomo, 182 F.R.D. at 92 (citing Green v. Wolf Corp., 406 F.2d 291, 299–301 (2d Cir. 1968)). Because Plaintiffs have shown that the Class Members "are unified in their task to prove

the common existence of the conspiracy" to prevent a multilateral electronic platform for stock lending, Sumitomo, 182 F.R.D. at 93, the court finds, as set forth below, that none of Defendants' arguments provide a basis for deviating from this well-established precedent to deny class certification.

a. Asquith & Parak's Damages Methodology

The Court must determine whether Plaintiffs have shown "that damages are capable of measurement on a classwide basis." Comcast, 569 U.S. at 34 (2013). "In Comcast, the Supreme Court held that courts should examine the proposed damages methodology at the certification stage to ensure that it is consistent with the classwide theory of liability and capable of measurement on a classwide basis." Foodservice, 729 F.3d at 123 n.8. Courts have generally found Comcast "to pose a low bar." In re Vale S.A. Sec. Litig., No. 19 Civ. 526 (RJD) (SJB), 2022 WL 122593, at *18 (E.D.N.Y. Jan. 11, 2022); see Strougo v. Barclays PLC, 312 F.R.D. 307, 313 (S.D.N.Y. 2016) (noting that "[t]he Second Circuit has rejected a broad reading of Comcast") (citing Roach v. T.L. Cannon Corp., 778 F.3d 401, 407–08 (2d Cir. 2015)); see Dial Corp., 314 F.R.D. at 117 (explaining that "the Second Circuit read Comcast narrowly in Roach . . ."). "Courts may not shy away from a 'battle of the experts' at the class certification stage[,]" and "Plaintiffs must advance a workable methodology to demonstrate that antitrust injury can be proven on a class-wide basis." Dial Corp., 314 F.R.D. at 115; see NYSE Specialists, 260 F.R.D.at 80 (finding that plaintiff satisfied predominance by establishing that it could "prove economic loss through the application" of a common damages methodology to the data for the class period).

Plaintiffs posit that "Defendants conspired to maintain an inflated spread between the price at which they borrow from the Beneficial Owner Subclass and the price at which they lend

to the End-User Subclass." (ECF No. 412 at 48). Plaintiffs' experts then compare real-world pricing to estimated pricing in the but-for world, to estimate the amount by which Defendants underpaid the Beneficial Owner Subclass and overcharged the End-User Subclass. (Id.) Specifically, Asquith & Parak use Defendants' data to "compare pricing in the real-world to estimated pricing in the world 'but for' the conspiracy, allowing them to estimate the amount by which Defendants overcharged borrowers and underpaid lenders due to their antitrust violation." (Id.) This manner of calculating damages from an antitrust conspiracy to inflate transaction spreads is well-recognized in the Second Circuit. See State of N.Y. v. Hendrickson Bros., Inc., 840 F.2d 1065, 1077 (2d Cir. 1988) (collecting cases); see also In re Elec. Books Antitrust Litig., No. 11 MD 2293 (DLC), 2014 WL 1282293, at *16 (S.D.N.Y. Mar. 28, 2014) (citing Hendrickson, 840 F.2d at 1077).

Defendants first argue that Asquith & Parak's damages model is unreliable because there are "fundamental differences" between OTC and platform stock loans. (ECF No. 431 at 22). Defendants contend that OTC loans have the bespoke characteristics of offering recall and rerate protection, "better opportunities to lend and borrow stock," and "bundled services" that are not available with platform loans. (ECF No. 431 at 24–26). Other than their own self-serving statements, however, Defendants have failed to substantiate these supposed fundamental differences with empirical or academic evidence. (See ECF No. 559-1 at 40–42). Defendants' expert acknowledged that he had done no "empirical analysis" of rerate protection, nor could he identify any academic authority for Defendants' assertion that rerate protection created a fundamental distinction between OTC and platform stock lending. (ECF Nos. 470-6 at 170–71; 559-1 at 40–41). Notwithstanding the supposed indispensable intrinsic value of recall protection,

Defendants conceded at oral argument that none of the Prime Broker Defendants' agreements with their customers contained any written recall provision. (ECF No. 559-1 at 43; see 470-6 at 68–70 (Prof. McCrary conceding that prime brokerage agreements did not contain recall provisions)). Similarly, Defendants do not cite any prime brokerage agreement reflecting the Prime Broker Defendants' obligation to provide so-called bundled services. (Compare ECF No. 431 at 25–26 with ECF No. 469 at 21). Of course, to the extent these services are valuable, Plaintiffs have shown by common proof—their experts' opinions—the better way to offer such protections to all Class Members would be through standardized contractual terms on a multilateral platform. (ECF Nos. 470-1 at 43–48 ¶¶ 95–109; 470-2 at 45 ¶¶ 92–93).

Defendants' second objection to Asquith & Parak's damages model is that it predicts that as many as 30% of the Class Members are uninjured. (ECF Nos. 431 at 26–30; 559-1 at 127–28, 150). But Plaintiffs have shown, however, that this calculation arose from Prof. McCrary's data errors, and when those errors are corrected, Asquith & Parak show that the potential number of uninjured Class Members in either Subclass is less than 0.5%. (ECF Nos. 470-2 at 143 ¶ 344; 559-1 at 55–60, 65–67; see ECF No. 469 at 34). Even if the number is slightly larger than Asquith & Parak estimate, however, "the fact that some putative class members may be uninjured does not automatically defeat predominance," Dial Corp., 314 F.R.D. at 120, and as discussed above, the Court can exclude this de minimis set at the damages stage. (See § IV.A.4, supra). See In re Namenda Indirect Purchaser Antitrust Litig., 338 F.R.D 527, 563 (S.D.N.Y. 2021) (finding that neither de minimis number of uninjured plaintiffs nor possibility that some class members "may be entitled to more recovery than others" defeated predominance); see also Elec. Books, 2014 WL 1282293, at *22 (noting "general principle" that the "'possibility or indeed inevitability'" that

"'a class will often include persons who have not been injured by the defendant's conduct'") (quoting Kohen v. Pac. Inv. Mgmt. Co., 571 F.3d 672, 677 (7th Cir. 2009) (Posner, J.)).

Defendants' third objection to Asquith & Parak's damages model is that not all class members would have used a multilateral electronic platform, thus undermining Plaintiffs' assertions of class-wide injury. (ECF No. 431 at 32). Any argument, however, about which Class Members would or would not have elected to join a platform in the but-for world is too speculative to undermine Plaintiffs' damages model—as one court in this District has explained, an antitrust defendant "may not escape its obligation to compensate [plaintiffs] whom it overcharged by arguing that some of them" would not have chosen the but-for world option in any event. Elec. Books, 2014 WL 1282293, at *20 (citing, inter alia, Berkey Photo, Inc. v. Eastman Kodak Co., 603 F.2d 263, 296 (2d Cir. 1979) ("An unlawful monopolist must be deprived of the fruits of its wrongful conduct, and one of the forbidden fruits is an excessive price . . . So long as a monopolist enjoys the flower of evil at the expense of its customers, those victims must have a remedy.")).

Defendants' fourth challenge to Asquith & Parak's model is that it would require individualized inquiries that would overwhelm common questions at trial. (ECF No. 431 at 38–40, 46). The Court notes that because Plaintiffs' but-for world is entirely hypothetical, i.e., "there is a dearth of market information unaffected by the collusive action of the defendants," this is a case in which Plaintiffs' "burden of proving damages is, to an extent, lightened, for 'it would be a perversion of fundamental principles of justice to deny all relief to the injured person, and thereby relieve the wrongdoer from making any amend for his acts.'" Hendrickson, 840 F.2d at 1077 (quoting Story Parchment Co. v. Paterson Parchment Paper Co., 282 U.S. 555, 563 (1931));

see also Elec. Books, 2014 WL 1282293, at *16–17 (noting difficulties in proving but-for world in antitrust case). (See ECF Nos. 414-9 at 96 ¶ 253 (Dr. Zhu noting that because the Conspiracy was in effect since 2000, "there is no pure 'before/after' study that can be done because there is no 'before' and no 'after.'"); 470-2 at 8 ¶ 10 (Asquith & Parak noting there is "no clean period of data [] untainted by the conspiracy")). In these circumstances, the jury will be permitted to "make a just and reasonable estimate of the damage based on relevant data, and render its verdict accordingly." Bigelow v. RKO Radio Pictures, 327 U.S. 251, 264 (1946).

What Plaintiffs have succeeded in showing is the availability of a reliable, formulaic model that they have used to class-wide damages at the class certification stage, and will deploy to calculate Class Members' damages at the damages stage of the case. (ECF No. 470-2 at 143, 157–58 ¶¶ 343, 379–80). That applying Asquith & Parak's model may be complicated or involve some individual issues does not bar certification at this stage of the litigation, particularly where Defendants have not succeeded in precluding Plaintiffs' experts on Daubert grounds. See Roach, 778 F.3d at 404 (explaining that the presence of individualized damages issues alone does not defeat predominance); see also Term Commodities, 2022 WL 485005, at *6 (finding that "the complexity of the damages calculation is not a sufficient bar to certification at this stage in the litigation"). Having provided a reliable, formulaic damages model, Plaintiffs "have established that common issues in this litigation will predominate over any individual ones." Elec. Books, 2014 WL 1282293, at *23. Even to the extent that Defendants seek to show now or at a future stage that Asquith & Parak's damages model is inaccurate, that, too, "is itself [a question] common to the claims made by all class members[,]" Tyson Foods, Inc. v. Bouaphakeo, 577 U.S. 442, 457 (2016), and thus reinforces that common issues will predominate.

b. Dr. Zhu's Impact Model

Defendants challenge Plaintiffs' reliance on Dr. Zhu's "theoretical 'search cost' model [to] prove[] that the alleged conspiracy had 'market-wide impact.'" (ECF No. 431 at 41 (citing ECF No. 412 at 36–37)). Defendants' first challenge, based on Prof. McCrary's opinions, to Dr. Zhu's impact model is his failure "to compare actual-world prices to estimates of but-for prices" and his "assum[ing] away almost all of the price dispersion that existed in the actual world." (ECF No. 431 at 41; see ECF No. 432-2 at 99–101 ¶¶ 244–47). Prof. Zhu defends his model, which is conditioned only on observable factors, as better able to "isolate the cause-and-effect relationship," whereas Prof. McCrary's reliance on "the raw transactional data . . . [will] inevitably add error to the analysis." (ECF No. 470-1 at 127 ¶ 278). Prof. Zhu points out that the dispersion in real-world pricing data that Prof. McCrary sees is in fact caused by observable factors such as "revenue, asset size, number of prime brokers with whom they work, type of stock borrowed, and their investment strategies." (Id.) Prof. Zhu thus clarifies that his impact model is "conditional on observable characteristics." (Id. at 129 ¶ 286).

Defendants also criticize Dr. Zhu's reliance on the supposedly flawed premise that prime brokers do not know which clients have multiple prime brokers, his failure to account for search costs prime brokers incur, and the irrelevance of his model to GC transactions. (ECF No. 431 at 32–33). Prof. Zhu refutes this criticism, however, by pointing out that his "model requires only that prime brokers have incomplete knowledge about" their clients' options with other prime brokers, i.e., that "prime brokers have incomplete information about unobservable characteristics." (ECF No. 470-1 at 124–26 ¶¶ 273, 276). Prof. Zhu also asserts that any search costs prime brokers incur is "inconsequential," because clients are seeking liquidity and prime

brokers are providing liquidity, "[r]egardless of who starts the conversation." (Id. at 131 ¶ 291). As to GC collateral, Prof. Zhu's point is that the search costs in the OTC market, for individual or grouped trades, causes "prices that are not fully competitive." (Id. at 130 ¶ 288).

Defendants' final criticism of Dr. Zhu's impact model is his reliance on a "yardstick analysis" of comparable financial markets to conclude that all Class Members would have benefited from a multilateral electronic platform. (ECF No. 431 at 42–43). Prof. Zhu provides extensive substantive response to this criticism, including by expanding the number of comparators. (ECF No. 470-1 at 18–20, 131–65 ¶¶ 28–34, 293–364). In any event, courts in this Circuit have recognized the "'yardstick' method for calculating damages [as] an accepted means of measuring damages in an antitrust action." Dial Corp., 314 F.R.D. at 118; see Restasis, 335 F.R.D. at 18 (referring to yardstick approach to comparing but-for world as "a generally accepted way to measure antitrust damages"); see SourceOne Dental, Inc. v. Patterson Cos., Inc., No. 15 Civ. 5440 (BMC), 2018 WL 2172667, at *4 (E.D.N.Y. May 10, 2018) (recognizing that yardstick methodology "is a generally accepted method for measuring antitrust damages"); see also NASDAQ, 169 F.R.D. at 521 (listing yardstick approach as one of the "widely accepted means of measuring damages in antitrust cases"). Given that Defendants' Conspiracy makes a selection of perfectly comparable benchmark markets essentially impossible, any dispute about whether Prof. Zhu has selected appropriate comparator markets is appropriately deferred to the merits stage, and does not defeat Plaintiffs' showing of a common methodology to show class-wide impact. See Dial Corp., 314 F.R.D. at 119 ("To the extent that [defendants' expert] proposes an alternative damages model using different methodology and different benchmark firms, he is free to do so at the merits stage.").

A jury might find Defendants' critiques of Prof. Zhu persuasive. At this stage of the proceedings, however, the question before the Court is whether Prof. Zhu's evidence is capable of showing class-wide impact, not whether, on the merits, the jury will find that Plaintiffs have shown class-wide impact. See Dial Corp., 314 F.R.D. at 118–19 (finding that dispute between experts about appropriate methodology and benchmarks did not undermine plaintiffs' showing that their "damages model [was] sufficient to show that damages are measurable through use of a common methodology"); see also In re Ethylene Propylene Diene Monomer (EPDM) Antitrust Litig., 256 F.R.D. 82, 100 (D. Conn. 2009) ("The real question before this court is whether the plaintiffs have established a workable multiple regression equation, not whether plaintiffs' model actually works, because the issue at class certification is not which expert is the most credible, or the most accurate modeler, but rather have the plaintiffs demonstrated that there is a way to prove a class-wide measure of damages through generalized proof."); see also Amgen, 568 U.S. at 460 (explaining that, to demonstrate predominance under Rule 23(b)(3), a plaintiff does not have to "first establish that it will win the fray"); see also Tyson Foods, 577 U.S. 442, 459 (2016) (explaining that determining probative value of evidence "is the near-exclusive province of the jury"); see also Olean Wholesale Grocery Coop., Inc. v. Bumble Bee Foods LLC, 31 F.4th 651, 681 (9th Cir. 2022) (Ikata, J.) (explaining that district court sufficiently addressed disputes between parties' experts "to satisfy itself that" plaintiffs' expert's evidence "was capable of showing" class-wide impact for purposes of Rule 23(b)(3), and "question of persuasiveness [was] one for the jury . . ."). In sum, the Court finds that none of Defendants' criticisms of Prof. Zhu undermine Plaintiffs' ability to use Prof. Zhu's opinions to prove class-wide impact. Whether the jury will find that proof persuasive remains a question for trial.

c. FTAIA

The FTAIA, 15 U.S.C. § 6a, excludes from federal antitrust liability "trade or commerce . . . with foreign nations[,]" unless the conduct giving rise to the claim "has a direct, substantial, and reasonably foreseeable effect" on imports, domestic commerce, or American importers. 15 U.S.C. § 6a(1); see also F. Hoffmann-La Roche Ltd. v. Empagran S.A., 542 U.S. 155, 158 (2004) (noting that FTAIA "excludes from the Sherman Act's reach much anticompetitive conduct that causes only foreign injury"). The FTAIA thus "generally excludes wholly foreign conduct from the reach of the Sherman Act," Lotes Co., Ltd. v. Hon Hai Precision Indus. Co., 753 F.3d 395, 404 (2d Cir. 2014) (citations omitted), unless it meets one of two exceptions. See In re Air Cargo Shipping Servs. Antitrust Litig., No. 6 MD 1775 (JG) (VVP), 2008 WL 5958061, at *14 (E.D.N.Y. Sept. 26, 2008), aff'd in relevant part, 2009 WL 3443405 (E.D.N.Y. Aug. 21, 2009).

The first—the "Import Exception"—arises from the "'import or trade commerce' parenthetical, which provides that the antitrust law shall apply to conduct 'involving' import trade or commerce with foreign nations." In re Vitamin C Antitrust Litig., 904 F. Supp. 2d 310, 316 (E.D.N.Y. 2012) (citation and alteration omitted). The second—the "Domestic Effects Exception"—applies to "Sherman Act conduct involving nonimport trade or nonimport commerce when that conduct (1) has a direct, substantial, and foreseeable effect on import trade or import commerce, and (2) the Sherman Act claim arises out of that effect." Air Cargo, 2008 WL 5958061, at *14.

Plaintiffs contend that they have avoided the FTAIA's limitations by limiting the Proposed Class to "United States Stock Loan Transactions, defined as transactions in U.S. Stock conducted with U.S.-based entities of the Prime Broker Defendants." (ECF No. 412 at 53). To implement

this limitation, Asquith & Parak (i) exclude transactions involving the Prime Broker Defendants' foreign entities, and (ii) limit their damages calculation to transactions listed on U.S. exchanges (NYSE, NYSE MKT, NASDAQ, Arca, or BATS). (ECF Nos. 412 at 53; 414-10 at 9 ¶ 14, 170–71 ¶ 368; see id. at 10 n.2, 170–71 nn. 425–26). Plaintiffs argue that Asquith & Parak's methodology "ensures that class damages are generally transactions between Defendants' U.S.-based entities, with domestic counterparties[,]" and that any transaction with a foreign counterparty would involve only U.S.-listed stock and therefore "flow through domestic commerce" as the FTAIA requires. (ECF No. 412 at 53–54). Plaintiffs also note that the Import Exception would apply to (and therefore permit inclusion in the Proposed Class) any transactions with a foreign Beneficial Owner. (Id. at 54).

Defendants argue that determining which transactions must be excluded under the FTAIA would require extensive individual inquiries, defeating predominance. (ECF Nos. 431 at 44–45; 495 at 15–16). They contend that their U.S.-domiciled entities "operated both domestically and abroad and often transacted with counterparties domiciled and/or operating abroad[,]" and that Plaintiffs lack common evidence to identify where Class Members or Defendants were operating at the time of a given transaction. (ECF No. 431 at 45).

The Court finds that the FTAIA does not preclude a finding of predominance in this case. First, the Domestic Effects Exception to the FTAIA applies, and is subject to common proof. As discussed extensively above (see §§ IV.A.3–5, supra), Defendants' Conspiracy had "a direct, substantial, and reasonably foreseeable effect on domestic commerce" by preventing the successful implementation of a multilateral electronic stock lending platform. Lotes, 753 F.3d at 409. Second, those effects were class-wide, as described in Prof. Zhu's opinions, because Class

Members had to pay Defendants' higher prices due to the lack of competitive pricing through a multilateral platform. (ECF No. 414-9 at 96–128 ¶¶ 252–345; see ECF No. 469 at 37). Third, by limiting the Proposed Class to only those involving U.S.-listed stocks and Defendants' U.S.-based entities, Plaintiffs have ensured that the only transactions included are those injured by the domestic effects of Defendants' conspiracy. (ECF No. 412 at 53–54). The definition of the Proposed Class therefore intentionally avoids the two types of transactions to which the Import Commerce Exception does not apply: those involving a transaction on a foreign exchange or with a Defendant's foreign desk. See In re Foreign Exch. Benchmark Rates Antitrust Litig., No. 13 Civ. 7789 (LGS), 2016 WL 5108131, at *13 (S.D.N.Y. Sept. 20, 2016) ("FOREX I") (explaining that Import Commerce Exception does not apply "to transactions where a U.S. domiciled Exchange Plaintiff transacted on a foreign exchange, or where a U.S.-domiciled OTC Plaintiff operating abroad transacted with a foreign desk of a Defendant"); see also Chan Ah Wah v. HSBC N. Am. Holdings Inc., No. 15 Civ. 8974 (LGS), 2017 WL 2417854, at *2 (S.D.N.Y. June 5, 2017) (sufficient that plaintiffs alleged that "transactions at issue were executed on a U.S. exchange or with a U.S. trading desk"). Fourth, and in any event, stock loans by a foreign Beneficial Owner and Defendants' U.S.-based entities involves the import of stock into the United States, i.e., "import trade or commerce," 15 U.S.C. § 6a, which the FTAIA does not bar. See Allianz Glob. Invs. GmbH v. Bank of Am. Corp., 463 F. Supp. 3d 409, 425 (S.D.N.Y. 2020) (holding that "transactions between Plaintiffs operating abroad and Defendants operating domestically fall within the FTAIA imports exclusion, and such transactions are not barred"); see also FOREX I, 2016 WL 5108131, at *13 (explaining that "any collusive conduct in this case that affected the price of a transaction between a U.S.-based Plaintiff and a foreign desk sufficiently alleges conduct that 'involves

import trade or commerce'") (quoting Kruman v. Christie's Int'l PLC, 284 F.3d 384, 395 (2d Cir. 2002)), abrogated on other grounds by Hoffman-La Roche, 542 U.S. at 160).

Accordingly, the impact of the FTAIA does not preclude the conclusion that Plaintiffs have satisfied the predominance requirement under Rule 23(b)(3).

2. Superiority

Rule 23(b)(3) also requires the moving party to demonstrate that "a class action is superior to other available methods for fairly and efficiently adjudicating the controversy." Fed. R. Civ. P. 23(b)(3)). The "nonexhaustive" list of factors relevant to analyzing whether class treatment is superior, are: (i) the class members' interest in individually controlling the prosecution or defense of separate actions; (ii) the extent and nature of any litigation concerning the controversy already begun by or against class members; (iii) the desirability or undesirability of concentrating the litigation of the claims in the particular forum; and (iv) the likely difficulties in managing a class action. Fed. R. Civ. P. 23(b)(3); see Amchem, 521 U.S. at 615.

Plaintiffs argue that a class action is superior to any alternative adjudication method for four reasons. (ECF No. 412 at 55–56). First, litigating "a case of this scale and complexity" via a class action serves the "core" purpose, which the Supreme Court has recognized, of "overcom[ing] the problem that small recoveries do not provide the incentive for any individual to bring a solo action." Amchem, 521 U.S. at 617 (quoting Mace v. Van Ru Credit Corp., 109 F.3d 338, 344 (1997)). Second, no class members have filed individual cases. Third, here, "class-wide litigation of common issues will reduce litigation costs and promote judicial efficiency." Dial Corp., 314 F.R.D. at 121. Fourth and finally, Plaintiffs contend that "no inherent difficulties undermine the maintenance of this case as a class action." (ECF No. 412 at 55). Plaintiffs

maintain that without this case, "it is possible that there would be no private challenge to Defendants' antitrust violations, meaning that Defendants would effectively escape civil liability for a massive conspiracy to preserve an inefficient market structure." (ECF No. 412 at 55–56).

Defendants, on the other hand, argue that individual actions would be superior because the Proposed Class is composed not of individual consumers lacking sufficient resources but rather "hedge funds and financial institutions that manage over a billion dollars in assets[,]" who "are more than capable of prosecuting any claims they believe they might have against Defendants." (ECF No. 431 at 56 (citing ECF No. 432-4 at 81–82 ¶¶ 147–48)). Defendants point to the decision of the seven hedge funds to opt out (ECF No. 199), and to the fact "that these sophisticated entities have declined to bring their own antitrust suits" as support for lack of superiority. (ECF No. 431 at 57).

The Court finds that each of the four factors under Rule 23(b)(3) weigh in favor of finding superiority here. Individual actions for a putative class of thousands of members under any circumstance, but especially after over five years of litigation, "would be far less efficient, and far more costly and repetitious than continuing to proceed as a litigation." In re Payment Card Interchange Fee & Merch. Disc. Antitrust Litig., 330 F.R.D. 11, 57 (E.D.N.Y. 2019) (reaching that conclusion as to putative antitrust class action pending for thirteen years). Contrary to Defendants' assertion, the absence of any pending individual actions in fact shows that "there is little interest in class members bringing their own actions." Dial Corp., 314 F.R.D. at 121. Nor is "the presence of sophisticated individual investors capable of pursuing their claims independently . . . '[a] bar to a class when the advantages of unitary adjudication exist.'" New Jersey Carpenters Health Fund v. Royal Bank of Scotland Grp., PLC, No. 8 Civ. 5310 (DAB), 2016

WL 7409840, at *11 (S.D.N.Y. Nov. 4, 2016) (quoting Bd. of Tr. of AFTRA Ret. Fund v. JPMorgan Chase Bank, N.A., 269 F.R.D. 340, 355 (S.D.N.Y. 2010) (citations omitted)).

Given the number of common issues (see § IV.A.2, supra), "class-wide litigation of [these] common issues will reduce litigation costs and promote judicial efficiency," and any individual issues will not make a class action unmanageable or inappropriate. Dial Corp., 314 F.R.D. at 121. No other related actions are pending in another forum, and Defendants do not dispute Plaintiffs' showing that this District is a desirable forum for a complex antitrust class action. See Blessing v. Sirius XM Radio Inc., No. 9 Civ. 10035 (HB), 2011 WL 1194707, at *12 (S.D.N.Y. Mar. 29, 2011) (finding that "[c]oncentrating antitrust litigation in [the Southern District of New York] is desirable because [defendant] is headquartered in New York, and it would be inefficient for many courts to here, and for the Defendant to be subject to litigating, the same issues arising under the same facts and circumstances"). Finally, the fact that the seven hedge funds chose to opt out signifies the proper functioning of Rule 23 (see § IV.A, supra), and does not undermine the conclusion that Plaintiffs have effectively litigated this action before Judge Failla and the undersigned, and will continue to do so. See Restasis, 335 F.R.D. at 39.

Accordingly, the Court finds that Plaintiffs have shown that litigation this action as a class action is superior to other methods of adjudication.

C. Lead Plaintiffs and Class Counsel

The Court must address Plaintiffs' application for Quinn Emanuel and Cohen Milstein for appointment as lead counsel, and, implicit in the Motion, Plaintiffs' application to be appointed Lead Plaintiffs for the Proposed Class. See Martinek, 2022 WL 326320, at *20 (explaining that, after analyzing Rule 23(a) and Rule 23(b)(3) elements, court must consider appointment of lead

plaintiffs and lead counsel). For substantially the same reasons the Court discussed in analyzing typicality and adequacy, (see §§ IV.A.3–4, supra), the Court finds that Plaintiffs are suitable representatives of the Proposed Class, and that Quinn Emanuel and Cohen Milstein are qualified to represent the class. Accordingly, the Court respectfully recommends the appointment of IPERS, LACERA, OCERS, SCERA, and Torus as Lead Plaintiffs, and Quinn Emanuel and Cohen Milstein as Lead Counsel.

D. Class Period

In the Amended Complaint, Plaintiffs proposed a class period from January 7, 2009 "through the present." (ECF No. 73 at 4). In the Motion, Plaintiffs ask the Court to adopt a class period from January 1, 2012 through February 21, 2021, and possibly "through trial" (the "Proposed Class Period"). (ECF Nos. 412 at 14; 469 at 44–45).[13] In support of their ability to propose a class that extends "to the present[,]" Plaintiffs rely on the decision of the Honorable Gerard E. Lynch in Hnot v. Willis Grp. Holdings Ltd., in which he interpreted a motion to certify a class of employees "through the present" as requesting a class period through the date plaintiffs filed the motion. No. 1 Civ. 6558 (GEL), 2006 WL 2381869, at *2 n.4 (S.D.N.Y. Aug. 17, 2006). They also rely on examples of cases in which courts have certified classes through the date of the decision on the class certification motion. (ECF No. 469 at 44). See Balverde v. Lunella Ristorante, Inc., No. 15 Civ. 5518 (ER), 2017 WL 1954934, at *12 (S.D.N.Y. May 10, 2017) (certifying class "through the present"); see also Vasquez v. Leprino Foods Co., No. 17 Civ. 796 (AWI) (BAM), 2020

[13] The exact end date differs between Plaintiffs' opening brief and their reply – their opening brief proposed February 22, 2021, whereas the reply proposed February 21, 2021. (Compare ECF No. 412 at 14 with ECF No. 469 at 44). Because Plaintiffs filed the Motion on February 21, 2021, the Court uses that date as the end of the Proposed Class Period.

WL 1527922, at *9 (E.D. Cal. Mar. 31, 2020) (finding proposed class period "until the present" not ascertainable and setting end of class period as date of certification order).

Defendants oppose Plaintiffs' attempt to expand the Proposed Class. (ECF Nos. 431 at 49–50; 557-1 at 94–100; 559-1 at 194–97). First, Defendants point out that, once discovery began following IPERS I, the parties limited discovery to the period ending in 2017, and Plaintiffs did not suggest before the Motion that they would propose a class period beyond 2017, and thus have not met their evidentiary burden to support certification of a class beyond 2017. (ECF Nos. 431 at 58–59; 173 at 1). Second, Defendants argue that extending the class period "would require (i) production of post-2017 transaction data that would take many months to retrieve and analyze, and (ii) another lengthy round of fact discovery, expert reports, and supplemental briefing concerning the post-2017 period." (ECF No. 431 at 59; see ECF No. 557-1 at 97–98). Third, at oral argument, Defendants argued that, post-2017, the market may have changed as the average difference between borrowing and lending loan costs continued to shrink, and as hedge funds ended or changed their prime broker relationships. (ECF No. 557-1 at 95–96).

"It is well-established that a certifying court 'is not bound by the class definition proposed in the complaint.'" In re Namenda Direct Purch. Antitrust Litig., 331 F. Supp. 3d 152, 210 (S.D.N.Y. 2018) ("Namenda I") (quoting Robidoux v. Celani, 987 F.2d 931, 937 (2d Cir. 1993)). Courts more often, however, cite this principle "as support for the court's ability to narrow a proposed class," and "[f]ar fewer cases support the converse proposition that the court may approve the expansion of the class [from how] it was defined in the complaint." Namenda I, 331 F. Supp. 3d at 210 (emphasis added; collecting cases). In determining whether to exercise its discretion to expand the class period beyond that proposed in the operative complaint, the Court considers

whether the expansion would give rise to concerns about sufficient notice to Defendants and would require additional fact or expert discovery. See id. at 211 (finding that expanding class period did not raise notice or discovery concerns and distinguishing case denying leave to amend class action complaint to add defendants over whom court lacked personal jurisdiction or as to whom plaintiffs failed to state a claim).

The Court finds that, while Plaintiffs included, at the time they filed the Motion, the Proposed Class Period, giving Defendants sufficient notice to be formulate arguments in opposition, see Namenda I, 331 F. Supp. 3d at 211 (holding that plaintiffs' inclusion of "the expanded definition at the outset, in their initial motion for certification" was not an attempt to expand the definition "in the midst of" class certification briefing, and therefore, defendants had sufficient notice), Plaintiffs have failed to show the "good cause" required by the Fourth CMP for further extending fact discovery to encompass more than four more years of transactional data. (ECF No. 298 at 13). See Fed. R. Civ. P. 16(b) (providing that scheduling orders "shall not be modified except upon a showing of good cause and by leave of the district judge"). Plaintiffs offer no justification for their failure to raise at any time before the Motion the possibility that they would seek transactional data discovery post-2017. Thus, as Judge Lynch found in Hnot, "there is no basis for concluding that [P]laintiffs have been diligent in pursuing the discovery now at issue[,]" and "therefore no good cause to modify" the Fourth CMP to permit discovery of post-2017 transactional data. 2006 WL 2381869, at *4.

In addition, the Court is concerned that adopting the Proposed Class Period would require the reopening of fact discovery, which closed in October 2020. (ECF No. 298). As Plaintiffs acknowledged in requesting an earlier extension of the fact discovery schedule, the transaction

data Defendants already produced came "from numerous different databases over ten years and [] require[d] many months to process, standardize, and analyze[,]" followed by the "complicate[d]" and "time-intensive" requirement to anonymize the data in compliance with the enhanced protective order in this action. (ECF Nos. 267 at 1; 557-1 at 98). To repeat this process for an additional four or more years' worth of transactional data would thus undoubtedly take several additional months– hardly the "ministerial" effort that Plaintiffs posit – and would delay the schedule for dispositive motions and trial. (ECF No. 469 at 18, 44). Again, as in Hnot, these burdens "are not trivial" and weigh against adopting the Proposed Class Period. 2006 WL 2381869, at *4.

Finally, notwithstanding their reliance on Hnot, the Court observes that Judge Lynch ultimately denied the relief that Plaintiffs seek here—a reopening of fact discovery and extension of the class period beyond that alleged in the Amended Complaint. Hnot, 2006 WL 2381869, at *6. Nor can Plaintiffs find support in Ansoumana v. Gristede's Operating Corp., where the court shortened the class period from the "date of entry of judgment," as the plaintiffs had pled in their complaint, to the date of the court's decision, such that no additional fact discovery was requested or required. 201 F.R.D. 81, 85 n.2 (S.D.N.Y. 2001). (ECF No. 469 at 44).

Accordingly, I respectfully recommend that Plaintiffs' request for the Proposed Class Period be DENIED, and instead, the Class Period be set as January 1, 2012 to August 16, 2017.

V. CONCLUSION

For the reasons set forth above, I respectfully recommend that Plaintiffs' Motion for Class Certification be GRANTED IN PART and DENIED IN PART as follows:

(1) The following Class be certified:

a. All persons and entities who, directly or through an agent, entered into at least 100 U.S. Stock Loan Transactions as a borrower from the prime brokerage businesses of the U.S.-based entities of the Prime Broker Defendants, or at least 100 U.S. Stock Loan Transactions as a lender of Hard-to-Borrow stock to the U.S.-based entities of the Prime Broker Defendants, from January 1, 2012 until August 16, 2017.

b. Excluded from the Class are: Defendants, as well as Citadel LLC, Two Sigma Investments, PDT Partners, Renaissance Technologies LLC, TGS Management, Voloridge Investment Management, and the D.E. Shaw Group and their corporate parents, subsidiaries, and wholly owned affiliates, as well as any federal governmental entity, any judicial officer presiding over this action, and any juror assigned to this action.

(2) The following management Subclasses be utilized:

a. The "End-User Subclass": All persons and entities within the class who, directly or through an agent, entered into at least 100 U.S. Stock Loan Transactions as a borrower from the prime brokerage businesses of the U.S.-based entities of the Prime Broker Defendants during the Class Period; and

b. The "Beneficial Owner Subclass": All persons and entities within the class who, directly or through an agent, entered into at least 100 U.S. Stock Loan Transactions as a lender of Hard-to-Borrow stock to the U.S-based entities of the Prime Broker Defendants during the Class Period.

(3) Plaintiffs IPERS, LACERA, OCERS, SCERA, and Torus be appointed Lead Plaintiffs.

(4) Cohen Milstein and Quinn Emanuel be appointed Class Counsel.

(5) Plaintiffs' request to extend the Class Period to February 21, 2021 or later and reopen fact discovery be DENIED.

Dated: New York, New York
June 30, 2022

SARAH L. CAVE
United States Magistrate Judge

* * *

NOTICE OF PROCEDURE FOR FILING OBJECTIONS TO THIS REPORT AND RECOMMENDATION

The parties shall have fourteen (14) days (including weekends and holidays) from service of this Report and Recommendation to file written objections pursuant to 28 U.S.C. § 636(b)(1) and Rule 72(b) of the Federal Rules of Civil Procedure. See also Fed. R. Civ. P. 6(a), (d) (adding three additional days when service is made under Fed. R. Civ. P. 5(b)(2)(C), (D) or (F)). A party may respond to another party's objections within fourteen (14) days after being served with a copy. Fed. R. Civ. P. 72(b)(2). Such objections, and any response to objections, shall be filed with the Clerk of the Court. See 28 U.S.C. § 636(b)(1); Fed. R. Civ. P. 6(a), (d), 72(b). Any requests for an extension of time for filing objections must be addressed to Judge Failla.

FAILURE TO OBJECT WITHIN FOURTEEN (14) DAYS WILL RESULT IN A WAIVER OF OBJECTIONS AND WILL PRECLUDE APPELLATE REVIEW. See 28 U.S.C. § 636(b)(1); Fed. R. Civ. P. 6(a), (d), 72(b); Thomas v. Arn, 474 U.S. 140 (1985).