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UNITED STATES OF AMERICA
before the
SECURITIES AND EXCHANGE COMMISSION

In The Matter of the Application of: SECURITIES INDUSTRY AND FINANCIAL MARKETS ASSOCIATION for Review of Actions Taken by Self-Regulatory Organizations	Admin. Proc. File No. 3-15350 The Honorable Brenda P. Murray, Chief Administrative Law Judge

PREHEARING BRIEF OF NYSE ARCA, INC.

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GLOSSARY OF TERMS

2006 NYSE Arca Rule Change	NYSE Arca Proposed Rule Change, Proposal to Establish Market Data Fees, File No. SR-NYSEArca-2006-21 (May 23, 2006) (Ex. 11)
2014 Procedures Order	Order Establishing Procedures and Referring Applications for Review to Administrative Law Judge for Additional Proceedings (May 19, 2014) (Ex. 3)
ArcaBook Approval Order	Order Setting Aside Action by Delegated Authority and Approving Proposed Rule Change Relating to NYSE Arca Data, 73 Fed. Reg. 74770 (Dec. 9, 2008) (Ex. 46)
ArcaBook Filing	Proposed Rule Change by NYSE Arca, Inc. Relating to Fees for NYSE Arca Depth-of-Book Data, Release No. 34-63291, File No. SR-NYSEArca-2010-97 (Nov. 9, 2010) (Ex. 1)
Atradia Report	Atradia Research Study, The Cost of Access to Real Time Pre & Post Trade Order Book Data in Europe (Aug. 2010)
ATS	Alternative trading system
Clark Declaration	Declaration of Colin Clark in Support of NYSE Arca, Inc.'s Opposition to Satisfaction of Jurisdictional Requirement (Aug. 18, 2014) (Ex. 5)
Commission or SEC	United States Securities and Exchange Commission
DOJ	United States Department of Justice
Dodd-Frank Act	Dodd-Frank Wall Street Reform and Consumer Protection Act, 15 U.S.C. § 78s(b)(3)(A)
Donefer Report	Expert Report of Bernard S. Donefer (March 6, 2015)
Evans Report	Expert Report of David S. Evans (March 6, 2015)
Exchanges	NYSE Arca, Inc. and the Nasdaq Stock Market LLC
Hendershott-Nevo Report	Expert Report of Professor Terrence Hendershott, Ph.D. and Professor Aviv Nevo, Ph.D. (Jan. 26, 2015) (Ex. 65)

NBBO	National best bid and offer
NetCoalition I	*NetCoalition v. SEC*, 615 F.3d 525 (D.C. Cir. 2010)
NetCoalition II	*NetCoalition v. SEC*, 715 F.3d 342 (D.C. Cir. 2013)
NYSE Arca	NYSE Arca, Inc.
October 2006 Approval Order	Order Approving Proposed Rule Change Relating to NYSE Arca Data, Release No. 34-54597 (filed Oct. 12, 2006)
Ordover Report	Expert Report of Janusz A. Ordover (Jan. 26, 2015)
SIFMA Application	SIFMA's Application for an Order Setting Aside Rule Change of NYSE Arca, Inc. Limiting Access To Its Services (May 30, 2013) (Ex. 2)
SIFMA Member Declarations	Exhibits 1-9 to the Brief of SIFMA Regarding Satisfaction of Jurisdictional Requirements, Admin. Proc. File 3-15350 (July 28, 2014) (Ex. 4)
SRO	Self-regulatory organization

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Pursuant to Rule 222 of the SEC's Rules of Practice and the Order on the Issues of Jurisdiction and Scheduling, dated October 20, 2014, NYSE Arca respectfully submits this prehearing brief. For the reasons discussed herein, and in light of the evidence NYSE Arca will present at the hearing, the SIFMA Application should be dismissed.

PRELIMINARY STATEMENT[1]

The SEC tasked this Tribunal with making an initial determination as to whether the ArcaBook Filing, which set fees for the ArcaBook real-time depth-of-book proprietary market data product, should be vacated. The issue for decision is whether NYSE Arca was subject to significant competitive constraints in pricing ArcaBook. *NetCoalition v. SEC*, 615 F.3d 525, 541-43 (D.C. Cir. 2010); 2014 Procedures Order (Ex. 3) at 5-6. The evidence will show that it was and is:

- The DOJ, the primary enforcer of federal antitrust law, has on two separate occasions found that there is significant competition for the sale of proprietary market data products.
- SIFMA concedes that market data and trade execution services are "joint products," and NYSE Arca will demonstrate that intense platform competition imposes constraints on the pricing of proprietary market data products.
- There is a linkage between order flow and market data such that the intense competition for order flow (which SIFMA concedes exists) constrains prices for market data. *NetCoalition I*, 615 F.3d at 543-44; 2014 Procedures Order (Ex. 3) at 5-6. This fact will be established through NYSE Arca's expert testimony and direct evidence that SIFMA members themselves believe in, understand, and seek to exploit this linkage against the Exchanges. [redacted]
- There are alternatives to purchasing depth-of-book data. Remarkably, SIFMA has not offered a single piece of evidence related to the actual behavior of traders—the

[1] NYSE Arca incorporates and preserves for further review all arguments NYSE Arca made in the briefing that preceded the 2014 Procedures Order (Ex. 3) and Your Honor's October 20, 2014 order. Among other objections, NYSE Arca preserves its objections that SIFMA lacks standing and that the SIFMA Application was properly and timely brought as a denial of access proceeding.

> very entities it purports to represent. NYSE Arca's unrebutted evidence of trader behavior will demonstrate that the depth-of-book products offered by other exchanges constrain the pricing of ArcaBook. *NetCoalition I*, 615 F.3d at 543-44; 2014 Procedures Order (Ex. 3) at 5-6.

Since *NetCoalition I* was briefed and argued, SIFMA has advocated that the Exchanges should be required to give proprietary market data away for free. SIFMA lost that battle: The D.C. Circuit and the Commission hold that NYSE Arca is entitled to sell ArcaBook and cannot be compelled to give it away for free. Yet SIFMA wants the SEC to set aside the fee set by NYSE Arca under the constraints imposed by the markets, effectively turning the SEC into a permanent market data rate-maker. But SIFMA's submissions offer no affirmative position on what fees should be charged or even how that question might be approached. SIFMA's silence makes clear that what SIFMA really wants is for Exchanges to be on perpetual hold with respect to what they can charge for depth-of-book data—a position designed to enhance the revenues of SIFMA's members who operate exchanges, dark pools, and ATSs that directly compete with the Exchanges for order flow and profit from the redistribution of the Exchanges' market data—at the Exchanges' expense.

SIFMA's proffered experts take this concept even further, suggesting that the Exchanges should be offering *consolidated* depth-of-book data. In other words, SIFMA's experts argue that not only should the Commission set ***prices*** for proprietary market data products, but that it should also ***decide what products the Exchanges are required to offer***. But the Exchange Act is designed to provide "greater flexibility for market forces to determine data products and fees." ArcaBook Approval Order (Ex. 46) at 45. SIFMA's argument is a direct attack on that statutory scheme and should be rejected.

Because NYSE Arca was subject to significant competitive constraints when it set the pricing for ArcaBook, Your Honor should recommend dismissing the SIFMA Application.

PROCEDURAL HISTORY

On May 23, 2006, NYSE Arca filed with the Commission the 2006 NYSE Arca Rule Change, which proposed a fee for access to ArcaBook. On October 12, 2006, the Commission, pursuant to delegated authority, issued an order approving the proposed rule change.[2] In approving the rule change, the Commission determined that it was consistent with the Exchange Act. *See* October 2006 Approval Order at 10.

SIFMA and NetCoalition (a technology lobby group) petitioned the full Commission to review that order. The Commission did so, and approved the fees a second time. *See* ArcaBook Approval Order (Ex. 46). Evaluating the proposed fees under a "market-based" approach, the Commission determined that NYSE Arca is subject to significant competitive forces, including NYSE Arca's need to attract order flow from market participants and the availability to market participants of alternatives to purchasing the ArcaBook data.

NetCoalition and SIFMA filed a petition to review the ArcaBook Approval Order in the United States Court of Appeals for the District of Columbia Circuit. On review, the D.C. Circuit upheld the market-based approach the Commission used, finding it fully consistent with the Exchange Act and determining that the Commission was not required to assess the proposed fees using a cost-based approach. *NetCoalition I*, 615 F.3d at 535, 537. The D.C. Circuit nonetheless vacated the ArcaBook Approval Order—not because it determined that the fees were unreasonable, but because the court found that the record lacked adequate support for the SEC's conclusion that competition between exchanges for order flow constrains market data prices. *Id.* at 539-41. The court also found that the SEC provided insufficient evidence to establish that

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2 NYSE Arca was not permitted to charge for ArcaBook until the 2006 NYSE Arca Rule Change was approved by the SEC. Until then, it provided ArcaBook for free.

traders would in fact switch to any of the alternatives the SEC had identified as potential substitutes. *Id.* at 542-44. Accordingly, the D.C. Circuit was "unable to perform [its] APA review on the record before [it]," and remanded to the SEC for further proceedings. *Id.* at 544.

In July 2010, just before the D.C. Circuit issued *NetCoalition I*, Congress enacted the Dodd-Frank Act, which changed the approval process for rules setting market data fees. Under the Dodd-Frank Act, such rule changes now "take effect upon filing with the Commission" if designated by an exchange as immediately effective. 15 U.S.C. § 78s(b)(3)(A). Accordingly, in November 2010, NYSE Arca filed the ArcaBook Filing to set fees for ArcaBook, and the filing became effective immediately. After the Commission declined to suspend the ArcaBook Filing, SIFMA and NetCoalition again sought review in the D.C. Circuit. *NetCoalition v. SEC*, 715 F.3d 342 (D.C. Cir. 2013). The D.C. Circuit dismissed the appeal, holding that the Commission's failure to suspend the ArcaBook Filing was not reviewable under Section 19(b)(3)(C).[3]

SIFMA then filed an application for review of the ArcaBook Filing, claiming that the fees constitute a denial of access pursuant to Section 19(d) of the Exchange Act.[4] On May 16, 2014, the Commission issued the 2014 Procedures Order that, *inter alia*, referred the case to Your Honor to "hold a hearing addressing whether the challenged rules should be vacated under the statutory standard set forth in Exchange Act Section 19(f) ... and after such a hearing[] issue

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3 *Id.* at 351. The D.C. Circuit found its ruling in *NetCoalition I* "inoperative" because the SEC is no longer required to approve SRO fee rules before they become effective. But the court stated that "[*NetCoalition I*] remains a controlling statement of the law as to what sections 6 and 11A of the Exchange Act require of SRO fees." *Id.* at 354.

4 SIFMA Application (Ex. 2). The application relating to ArcaBook is one of 73 challenges to rule changes that SIFMA asserts are related to market data fees established by NYSE Arca and other market data sources.

an initial decision in this matter."[5]

FACTUAL BACKGROUND

A. Depth-of-Book Data

Depth-of-book data provide a broader view of available liquidity than "top-of-book" data. Whereas "top-of-book" data provide the quantities available at the best (lowest) offer price and the best (highest) bid price, an "exchange's depth-of-book data include the quantity of shares available in all displayed limit orders submitted at prices away from the market, that is, buy orders at prices equal to or less than the best available bid, and sell orders at prices equal to or greater than the best available offer."[6] Depth-of-book data "are directly implicated in only a small share of trades (3.3%, according to one academic article) that occurs outside the [NBBO]. For the remaining 96.7% of trades, which occur at or within the NBBO, depth-of-book data are not necessary." Hendershott-Nevo Report (Ex. 65) ¶ 29.

All major exchanges now sell real-time depth-of-book data feeds, generally charging a flat access fee as well as additional fees that depend on the number and type of users within the institution and how the institution uses the data. *Id.* ¶ 30. Anyone who wants to buy depth-of-book data can do so, and "the pricing for depth-of-book data is uniformly applied to similarly-situated subscribers; it is not tied (positively or negatively) to where the subscriber routes its order flow. Thus, market participants are free to select the venues to which they route

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[5] 2014 Procedures Order (Ex. 3) at 20. A challenge to Nasdaq's depth-of-book data products was consolidated with this proceeding for administrative reasons because it concerned "fees for similar depth-of-book services" offered by a competing exchange. *Id.* at 21. But the challenge to the ArcaBook Filing remains a separate matter, and therefore this brief addresses only the ArcaBook Filing.

[6] Hendershott-Nevo Report (Ex. 65) ¶ 27. Traders can designate that orders sent to exchanges be hidden, meaning they will not be displayed in a depth-of-book data feed. An exchange's depth-of-book feed thus does not show all liquidity on even that exchange.

order flow and from which they buy market data (including depth-of-book data) based on which venues and products provide the best value proposition for them." *Id.* ¶ 30.

A display subscription "allows subscribers to view depth-of-book data on a display device (e.g., a computer screen or a Bloomberg terminal), but does not grant subscribers access to the underlying data for use in other applications." *Id.* ¶ 31. A non-display subscription allows use of depth-of-book data in computer applications that support automated trading, routing, and the operation of trading platforms, and its uses "include high-frequency and algorithmic trading, automated order and quote generation, price referencing for algorithmic trading or smart order routing, and even the operation of dark pools and ATSs." *Id.* ¶ 32. Non-display use subscribers (which include high-frequency traders) can have a large impact on an exchange's trading volume—they "account for a relatively large volume of orders on the exchanges, and therefore enjoy significant bargaining power relative to the exchange operators that supply depth-of-book data." *Id.* ¶ 33.

B. Competition Between Securities Exchanges

NYSE Arca is a national securities exchange registered with the SEC and is an SRO. Competition to sell depth-of-book data is one element of a broader platform competition between exchanges, which also includes competition in listing services, index services, other data services, order execution services, and network and data center colocation services. *Id.* ¶¶ 37-38. Exchanges are not solely, or even primarily, data vendors—NYSE Euronext's[7] market data revenue, which includes U.S. sales of core and non-core market data products and European

[7] Because some exchanges, such as NYSE Arca, are members of a family of related exchanges, on occasion this brief refers to the families rather than individual exchanges. For example, at the times of the fee filing at issue here, NYSE Arca was an indirect wholly-owned affiliate of NYSE Euronext. NYSE Euronext was acquired by Intercontinental Exchange in November 2013. When this brief refers to NYSE Arca, it means NYSE Arca itself.

sales of market data products, accounted for just 9% of total revenue annually from 2006 through 2013. *Id.* ¶ 39, Exhibit 1. Order execution services accounted for approximately two-thirds of NYSE Euronext's revenue during the same period. *Id.* In 2012, NYSE Euronext's revenue from all market data products (including the sale of core data) was $348 million; this revenue was dwarfed by almost $2.4 billion in revenue from transaction and clearing fees. *Id.*

Technical and regulatory changes have intensified competition among and increased fragmentation of U.S. stock exchanges over the last decade. In terms of technology, advances in telecommunications and computing power have dramatically reduced the cost of entry and have made possible new methods of making markets, faster channels for dissemination of financial information, greater access to exchanges, improved order-routing, and algorithmic trading. *Id.* ¶ 44. Non-exchange electronic trading platforms (ECNs) emerged in the 1990s as alternative trading platforms for institutional investors, and many of these alternative trading platforms (such as BATS, Direct Edge, Turquoise, and Chi-X) have gained significant market share from incumbent exchanges. *Id.* In response to these technological changes, the SEC has adopted a number of rule changes in an express effort to foster competition among trading venues, including the Limit-order Display Rule and the "ECN amendment" to the Quote Rule (1996), Regulation ATS (1998), and Regulation NMS (2006). *Id.* ¶¶ 46, 47-49.

The effect of these changes has been dramatic. Existing exchanges such as NYSE and Nasdaq face particularly fierce competition from new entrants, and the share of trading volume of NYSE and Nasdaq (the largest incumbent exchanges) has declined by approximately 35 points since 2007. *Id.* ¶ 50. Today approximately a dozen exchanges (including NYSE, NYSE Arca, Nasdaq and several BATS exchanges) compete with a variety of alternative trading systems (such as dark pools) for trades in the same securities. *Id.* ¶ 50-51, Exhibit 2.

C. ArcaBook Filing

This proceeding concerns the ArcaBook Filing, which authorizes market data fees for the receipt and use of ArcaBook depth-of-book market data that NYSE Arca makes available. Ex. 1 at 1. ArcaBook provides, among other information, lists of all of the bids and offers placed on NYSE Arca, including those outside the prevailing market price, in a real-time data feed. *Id.* at 2. The ArcaBook Filing continued the same access and device fees that went into effect in the SEC's ArcaBook Approval Order. *Id.* at 4.

D. Expansion Of Record In Response To Questions Asked In *NetCoalition I*

In *NetCoalition I*, the D.C. Circuit did not evaluate the merits of either the 2006 NYSE Arca Rule Change filing or the fees charged pursuant to it. Instead, the express holding of *NetCoalition I* was based "on the record before [the D.C. Circuit]," and the D.C. Circuit remanded so that the Commission could better explain the basis for its approval. *NetCoalition I*, 615 F.3d at 544. The ArcaBook Filing at issue here mooted that remand and is supported by a different and much larger record than what the D.C. Circuit reviewed in *NetCoalition I*, including concessions by SIFMA regarding several issues that were disputed in *NetCoalition I*.[8]

1. The ArcaBook Filing Substantially Supplemented The Record

In support of the November 2010 ArcaBook Filing, NYSE Arca submitted hundreds of pages of new evidence showing that competition constrains the pricing for ArcaBook. Contrary to SIFMA's assertion that the ArcaBook Filing disregarded *NetCoalition I* and is "essentially the very same one" at issue in *NetCoaltion I* (SIFMA Application (Ex. 2) ¶ 7),

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8 For example, in *NetCoalition I*, the D.C. Circuit did not consider the joint platform theory. *NetCoalition I*, 615 F.3d at 541 n. 16. SIFMA now concedes that executions and market data are joint products. *See* Evans Report ¶ 21 (exchanges "produce multiple related products"); ¶¶ 22-26 (exchanges act as "multi-product platforms" and "multi-sided platforms").

much of the evidence NYSE Arca submitted was not previously before the SEC and was specifically submitted to address questions raised in *NetCoalition I*, including evidence of competitive constraints.[9] For example, NYSE Arca's data "confirm[] that users of depth-of-book data account for significant trading volume," demonstrating an ability to resist price increases for data products, and that there was "an immediate and significant reduction in the number of accounts with at least one subscription for ArcaBook after [NYSE Arca] started charging for ArcaBook." ArcaBook Filing (Ex. 1) at 14 & Exhibit 3B.

In the ArcaBook Filing, NYSE Arca also established that competition for order flow constrains proprietary market data pricing because the more potential customers are exposed to an exchange's data, the more likely those potential customers are to send orders to that exchange. Conversely, if the data pricing dissuades potential customers from looking at the exchange's data, they are less likely to send orders to that exchange. *Id.* at 15-21. [redacted]

2. Department Of Justice Statements Regarding Competition

The Antitrust Division of the U.S. Department of Justice has examined the market for proprietary market data on two different occasions since the *NetCoalition I* decision, and both times concluded that there is substantial competition for the sale of proprietary market data. "After a thorough investigation" of approximately ten months in connection with a proposed merger of exchange groups, the DOJ concluded that there was competition for real-time

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9 SIFMA conflates the ***fees set*** for ArcaBook pursuant to the two rule filings with the ***rule filings themselves***. Although the fees for ArcaBook were the same in both filings, the rule filings are significantly different. It was the later, more substantial record that the Commission had before it when it chose not to suspend the ArcaBook Filing, which could not have happened without the SEC implicitly determining that the filing was consistent with the Exchange Act. *See* 15 U.S.C. § 78s(b)(3)(C).

proprietary equity data products in the United States, and imposed conditions on the merger to preserve that competition.[10] Separately, the DOJ blocked a hostile tender offer for NYSE Euronext by Nasdaq's parent because it believed that the acquisition would have substantially eliminated competition for, *inter alia*, the sale of proprietary data products.[11]

3. Hendershott-Nevo Report

NYSE Arca has submitted the expert report of Profs. Terrence Hendershott and Aviv Nevo. Prof. Hendershott is a Professor at the Haas School of Business at the University of California, Berkley, has published numerous articles related to the impact of information technology on financial markets, serves on the editorial boards of several leading operations management and finance journals, and served as a visiting economist at the New York Stock Exchange and as a member and chair of the NASDAQ Economic Advisory Board. Hendershott-Nevo Report (Ex. 65) ¶¶ 1-5. Prof. Nevo is a Professor in the Department of Economics at Northwestern University and a Professor of Marketing at Northwestern's Kellogg School of Business. He previously served as Deputy Assistant Attorney General for Economic Analysis in the Antitrust Division of the DOJ—the highest-ranking economics position in the Antitrust Division. Prof. Nevo has written extensively on competition issues and been published in a number of leading economic journals. *Id.* ¶¶ 6-11.

The overriding conclusion of the Hendershott-Nevo Report is that "competitive forces discipline and constrain NYSE Arca's pricing of ArcaBook, and in particular disciplined

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10 *See U.S. v. Deutsche Börse AG and NYSE Euronext* Complaint, Case No. 1:11-cv-02280-BAH (D.D.C., filed Dec. 22, 2011) (Ex. 8) ¶¶ 1, 4, 20, 21, 24, 28, 31, 33; *see also U.S. v. Deutsche Börse AG and NYSE Euronext* Competitive Impact Statement, Case No. 1:11-cv-02280-BAH (D.D.C., filed Dec. 22, 2011) (Ex. 9) at 1-2, 6-8, 13.

11 *See* Department of Justice Release, Nasdaq OMX Group Inc. and IntercontinentalExchange, Inc. Abandon Their Proposed Acquisition of NYSE Euronext After Justice Department Threatens Lawsuit (May 16, 2011) (Ex. 10).

and constrained the fees that NYSE Arca set when ArcaBook first became a paid market data product in January 2009." *Id.* ¶ 22. The Hendershott-Nevo Report establishes that "(1) competition for order flow and (2) competition for depth-of-book data products both impose significant competitive constraints on NYSE Arca's pricing of ArcaBook." *Id.* These conclusions are supported by, *inter alia*, the following facts:

- A large number of exchanges and ATSs (such as dark pools) have entered the market over the last decade, and these entrants have captured significant order flow share from NYSE Euronext and Nasdaq. This implies that the marketplace is highly competitive and that barriers to entry are low. *Id.* ¶ 23.
- Trading volume for individual stocks is not concentrated at particular exchanges, and exchanges face significant competition for order flow from other exchanges and trading platforms. Consequently, individual exchanges do not maintain an exclusive hold on trading for a particular security or depth-of-book data for it. *Id.*
- After ArcaBook became fee-liable in 2009, trade volume on NYSE Arca decreased and the number of accounts taking ArcaBook decreased. This establishes that the negative relationship between order flow and the price of depth-of-book data disciplines and constrains the price of depth-of-book data, particularly since order flow comprises a significant fraction of NYSE Arca's revenue. *Id.*
- ArcaBook prices are not consistent with optimal, profit-maximizing prices for a single-product firm selling only depth-of-book data. Consistent with the presence of demand complementarity, ArcaBook subscriptions and NYSE Arca trading volume both declined in response to ArcaBook becoming fee-liable, and NYSE Arca prices ArcaBook in the inelastic region of the demand curve. This demonstrates that NYSE Arca sets ArcaBook prices to maximize joint profits from multiple exchange products and services rather than profits from ArcaBook alone. *Id.*
- Many customers purchase one depth-of-book data product but not all depth-of-book data products, and the specific products they purchase change over time. This implies that depth-of-book products are indeed substitutes, that competition between these substitutes disciplines pricing, and that all buyers do not need to purchase depth-of-book data products from all significant trading venues. *Id.*

The Hendershott-Nevo Report also concludes that examining whether a product is priced above marginal cost is not appropriate because the relationship between price and marginal cost is not an appropriate measure of the competitiveness of an industry.[12]

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[12] *Id.* Economic theory holds that price equals marginal cost in a theoretical textbook model of perfect competition. But few markets meet the textbook model of perfect

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Evidence to be adduced at the hearing, including the opinions of NYSE Arca's experts, the testimony of NYSE Arca's Head of Proprietary Market Data (James Brooks), and documents will further corroborate the above evidence.

ARGUMENT

I. STANDARD OF REVIEW

NYSE Arca's "rules must, among other things, 'provide for the equitable allocation of reasonable dues, fees, and other charges among its members and issuers and other persons using its facilities'; 'promote just and equitable principles of trade' and not 'permit unfair discrimination between customers, issuers, brokers, or dealers'; and 'not impose any burden on competition not necessary or appropriate in furtherance of the purposes of' the Exchange Act." *NetCoalition I*, 615 F.3d at 528. And NYSE Arca's distribution of non-core data, such as the depth-of-book data at issue in this proceeding, "has to be done on 'fair and reasonable' and 'not unreasonably discriminatory' terms." *Id.* at 531.

In *NetCoalition I*, the D.C. Circuit approved the SEC's "market-based approach" for evaluating the pricing of ArcaBook. Pursuant to this approach, the "SEC first asks whether the exchange was subject to significant competitive forces in setting the terms of its proposal for non-core data, including the level of any fees." "Significant competitive forces" can be established by, among others, (1) an exchange's "compelling need to attract order flow from market participants" or (2) "the availability to market participants of alternatives to purchasing"

competition. In reality, competing products generally are differentiated and therefore not perfect substitutes, and fixed costs are high and production exhibits economies of scale. Under such real-world circumstances, firms cannot price at marginal cost. Hendershott-Nevo Report (Ex. 65) ¶¶ 93-95.

depth-of-book data.[13] If significant competitive forces exist, the SEC would approve the proposal unless it determined that there was "a substantial countervailing basis to find that the terms violate the Exchange Act or SEC rules." *Id.* at 532. If the exchange was not subject to significant competitive forces in setting prices for depth-of-book data, there must be a "substantial basis, other than competitive forces, in [the exchange's] proposed rule change demonstrating that the terms of the proposal are equitable, fair, reasonable, and not unreasonably discriminatory."[14]

The D.C. Circuit held that the SEC was ***not*** required to assess proposed fees using a cost-based approach.[15] To the contrary, the D.C. Circuit held that the SEC's "market-based approach to evaluating whether ... non-core data fees are 'fair and reasonable' ... is a permissible one." *NetCoalition I*, 615 F.3d at 535; *see also NetCoalition II*, 715 F.3d at 354. Although the D.C. Circuit noted that cost may be relevant under some circumstances (*id.* at 537), it did not

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13 *Id.* at 539; *see also* ArcaBook Approval Order (Ex. 46) at 48-49. In *NetCoalition I*, the D.C. Circuit made clear that, although the record before it did not support the SEC's conclusion that NYSE Arca was subject to significant competitive forces in pricing ArcaBook (*id.* at 544), a developed record establishing a need to attract order flow or the availability of alternatives would be sufficient to establish the existence of significant competitive forces. *See, e.g., id.* at 540 (the SEC's "conclusion [regarding order flow competition] is not objectionable in theory").

14 *Id.* Even if Your Honor were to find that NYSE Arca was not subject to significant competitive forces in setting the terms of the ArcaBook Filing, the rule would still comply with the Exchange Act because there is a "substantial basis, other than competitive forces [for concluding] that the terms of the proposal are equitable, fair, reasonable, and not unreasonably discriminatory." ArcaBook Approval Order (Ex. 46) at 49. The ArcaBook Filing benefits market participants by restraining prices, encouraging investment and innovation in data products, enhancing the efficiency of the joint platform, and promoting consumer welfare and transparency.

15 *NetCoalition I*, 615 F.3d at 535, 537. The D.C. Circuit found that "the SEC responded to the congressional desire that it rely 'on competition, whenever possible, in meeting its regulatory responsibilities for overseeing the SROs and the national market system.'" *Id.* at 535. The D.C. Circuit also noted that when Congress intended to require the SEC to use a cost-based standard it said so explicitly, but did not do so here. *Id.* at 534, n. 11.

mandate the submission of cost data where other evidence demonstrates that an SRO's fee is "fair and reasonable" and "not unreasonably discriminatory" under the Exchange Act. 15 U.S.C. § 78k-1(c)(1)(C)-(D). Indeed, as the record already established, requiring cost-based pricing would stifle competition and innovation, entangling the industry in time-consuming, expensive, and ultimately fruitless proceedings. *See* ArcaBook Filing (Ex. 1) at 23-26, Exhibit 3D. As the SEC found in the ArcaBook Approval Order, it is "virtually impossible to identify the costs specifically associated with the production of market data versus other SRO functions."[16]

II. NYSE ARCA'S PRICING OF ARCABOOK IS SUBJECT TO SIGNIFICANT COMPETITIVE FORCES

SIFMA's challenge rests on a misreading of *NetCoalition I*, theoretical and academic discussions unsupported by evidence, and arguments that defy how markets operate in the real world. Contrary to SIFMA's assertions, the pricing of ArcaBook is subject to significant competitive constraints.

A. ArcaBook Competes In A Competitive Market

Since *NetCoalition I* was decided, as noted above, the DOJ has twice examined competition among exchanges and both times concluded that there is substantial competition for the sale of proprietary market data. Thus, in examining a proposed merger between exchange groups, the DOJ's Antitrust Division conducted an extensive investigation over the course of approximately ten months to analyze how the proposed merger would affect any and all aspects

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16 ArcaBook Approval Order (Ex. 46) at n. 97. For this reason, SIFMA's criticism that NYSE Arca did "not include any evidence concerning the marginal cost of producing and distributing depth-of-book data" (Evans Report ¶ 54) is misplaced. Evidence of cost is not relevant to this proceeding because there is ample evidence of competitive constraints. And were this not the case, and were this to become the ratemaking proceeding SIFMA desires, then the Commission not only would have to identify costs, it would also need to consider the assets needed to generate market data (to determine the rate base) and establish an allowable rate of return on the rate base, turning each fee filing into a multi-year litigation.

of competition between the exchanges. As a result of its investigation, the DOJ concluded that there was significant competition between exchanges for real-time proprietary equity data products in the United States. As a result, DOJ imposed conditions on the proposed merger to preserve that competition. Ex. 8 ¶¶ 1, 4, 20, 21, 24, 28, 31, 33; Ex. 9 at 1-2, 6-8, 13.

The DOJ also blocked a hostile tender offer for NYSE Euronext by Nasdaq's parent, again after an extensive and thorough investigation of the likely effects the proposed acquisition would have on competition between exchanges. The DOJ concluded that the acquisition would have substantially eliminated competition for the sale of proprietary data products, and blocked the acquisition. Ex. 10. The DOJ made clear that these conclusions specifically applied to competition for proprietary market data products—not just competition generally among the exchanges. Remarkably, SIFMA's experts do not even acknowledge the DOJ's conclusions, thus conceding the DOJ's explicit recognition of actual competition between exchange groups (including NYSE, Nasdaq, and BATS) to sell proprietary market data. On their own, these conclusions by the primary enforcer of federal antitrust law—about which SIFMA's experts say ***not a word***—eliminate the need to consider other evidence regarding competition.

There is also substantial other evidence of the competitive constraints imposed on the pricing of market data products. Market data and trade executions are joint products with joint costs, and the undisputed competition between platforms constrains pricing for proprietary market data products. SIFMA has notably abandoned the opposition to the joint platform theory it pursued in *NetCoalition I*, now conceding that depth-of-book data and trade execution services are joint products.[17] Having made that concession, SIFMA now argues that rather than

[17] *Compare* Reply Brief of Petitioners NetCoalition and SIFMA, *NetCoalition I*, (D.C. Cir. Dec. 16, 2009) at 3 (depth of book data and order executions "are sold separately and often purchased by different customers") *with* Evans Report ¶ 21 (exchanges "produce

constraining market data prices, platform competition *increases* market data prices because those prices are used to subsidize lower prices for trade execution services. *Id.* ¶¶ 11-12. SIFMA's new position is equally without merit (and indeed its expert reports contain no citations to any supporting evidence for this novel theory).

The record will establish that competitors have made significant inroads into the incumbent exchanges' market share. New trading platforms have entered the market, traders have taken their order flow to new platforms, and the incumbent exchanges have lost substantial market share. *See* Hendershott-Nevo Report (Ex. 65) ¶ 61, Exhibit 2. NYSE and Nasdaq's combined share of trading volume has declined by approximately 35 points since 2007. *Id.* ¶ 50. And as a result of regulatory and technical changes, today approximately a dozen exchanges compete with a variety of alternative trading systems, such as dark pools, for trades in the same securities. *Id.* ¶ 50-51, Exhibit 2. This vigorous platform competition disciplines exchanges' depth-of-book data pricing by forcing exchanges to keep overall costs of trading low.

The Hendershott-Nevo Report not only quantifies competition between exchanges by aggregate trading volume, but also performs an analysis at the level of individual stocks. *Id.* ¶¶ 55-64. This evidence shows that the concentration of aggregate trading volume by exchange owner is low, and trading for nearly all stocks is unconcentrated or moderately concentrated and distributed across a variety of trading platforms.[18] In other words, competitive constraints among

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multiple related products"); ¶¶ 22-26 (exchanges act as "multi-product platforms" and "multi-sided platforms").

[18] *Id.* Dr. Evans concedes that the Herfindahl-Hirschman Index ("HHI") used in the Hendershott-Nevo Report is the "standard measure of concentration." Evans Report ¶ 72. He asserts, however, that the HHI analysis should exclude "non-exchange trading venues, for which depth-of-book data are generally not available." Evans Report ¶ 72, n. 83. But Dr. Evans provides no evidence or explanation why non-exchange trading venues should be excluded from HHI calculations of concentration in *trading*. Indeed, by excluding these venues SIFMA conveniently excludes its own members (the Exchanges'

trading platforms impact trading in essentially all stocks. *Id.* ¶¶ 56-62. This evidence conclusively refutes SIFMA's arguments that trading in a large portion of individual stocks is concentrated at a single exchange, thereby requiring traders to buy all exchanges' depth-of-book data. The Hendershott-Nevo analysis demonstrates that SIFMA's assertion is simply not true.

Mr. Donefer nonetheless contends that depth-of-book data is critical to the 10% of stocks that are concentrated on particular exchanges. Donefer Report ¶ 48. But the few stocks that exhibit concentrated trading volume are generally small-cap and thinly traded stocks, and together they make up less than 3% of average daily trading volume and market capitalization. Hendershott-Nevo Report (Ex. 65) ¶ 61(c). Mr. Donefer's analysis also ignores the fact that 96.7% of trades occur at or within the NBBO, meaning that depth-of-book data are directly implicated in only a small share of trades for any stocks and are irrelevant to the rest.[19]

SIFMA does not meaningfully address the Exchanges' evidence establishing that the marketplace for proprietary market data is competitive or offer any of its own in opposition. Instead, SIFMA tries to define the relevant market in a way that, by design, excludes any possibility of competitive constraints. In SIFMA's view, because each exchange "has exclusive control over the only source of information on the liquidity available on its exchange below the

competitors) from the relevant market. Dr. Evans thus calculates a higher concentration of trading volume by excluding from his analysis the competitors his client purports to represent.

[19] *Id.* ¶ 29. SIFMA discounts the Hendershott-Nevo HHI analysis because trading volumes were determined using monthly data, whereas orders are actually placed on a daily or real-time basis. That is a meaningless criticism. SIFMA ignores the fact that depth-of-book data is sold through monthly subscriptions. Donefer Report ¶ 49. Profs. Hendershott and Nevo analyze the data in the exact same way that depth-of-book data is sold—by monthly subscription. Moreover, HHI analysis measures concentration in a relevant market. Mr. Donefer's proposed (but not implemented) measurement method suggests that he would define the market as ArcaBook data at every specific point in time during trading, but customers do not buy ArcaBook data that way. Thus, Mr. Donefer's suggestion is contrary to standard antitrust analysis.

top of book," the relevant market consists only of an individual exchange's product. Evans Report ¶ 6.[20] But it is always true that a firm is the exclusive provider of its own products. Thus, Ford Motors is the only source of new Ford cars, but that does not mean that Fords do not face competition from General Motors, Chrysler, Honda, Toyota, and numerous other car brands. For that reason, courts are skeptical of, and routinely reject, market definitions consisting of just one supplier's products. *See, e.g., Town Sound & Custom Tops, Inc. v. Chrysler Motors Corp.*, 959 F.2d 468, 480 (3d Cir. 1992). SIFMA's attempt to demonstrate lack of competition by excluding competitors from its analysis should be rejected because it lacks legal basis.

SIFMA's argument that each exchange's proprietary market data is "unique" does not mean that those data products to not face competition. SIFMA's assertions to the contrary rest on the theoretical ideal that all firms operate in a "perfectly competitive" market, in which no firm sells products that are in any way differentiated from its competitors' products. But that theoretical "perfectly competitive" market does not exist—it is a textbook construct used to teach basic concepts in introductory economics courses. In the real world, most firms have some "market power" over their own products, but this does not mean that they do not face significant competitive constraints. *See id.* ¶ 94 and n. 117-21.

Mr. Donefer's definition of the relevant market also erroneously excludes BATS, but BATS provides depth-of-book data, meaning there is no reason to exclude it. He also

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20 *See also* Evans Report ¶ 72, n. 83. Dr. Evans also faults the Exchanges for not providing evidence of a "diversion ratio." *Id.* ¶ 54. That argument fails for several reasons. *First*, it is unclear what Dr. Evans means, and Prof. Nevo will explain at the hearing why what is sometimes called a "diversion analysis" is not relevant here. *Second*, there is no reason to speculate what market data customers might do with respect to switching between market data products, because Profs. Hendershott, Nevo, and Ordover have examined ***actual*** customer switching behavior and demonstrated that it is significant. Hendershott-Nevo Report (Ex. 65) ¶¶ 76-92; Ordover Report ¶¶ 25-28. SIFMA has no response to that evidence.

excludes non-exchange venues like dark pools that are run by the Exchanges' competitors—many of whom are SIFMA members—and that account for approximately 40% of trading volume even though they do not offer depth-of-book data. Hendershott-Nevo Report, (Ex. 65) at Exhibit 2. The mere fact that approximately 40% of trading occurs on such venues, which do not offer depth-of-book data at all, cuts against SIFMA's claims that everyone needs all depth-of-book data all the time; the simple fact that unlit venues draw significant amounts of order flow is inconsistent with that theory.

Finally, because the competitive constraints imposed by platform competition are so powerful, "profit margins" on depth-of-book data products cannot be used to assess "market power."[21] "Profit margins" reflect pricing above accounting costs, and provide a measurement of accounting profits (not economic profits), which are not evidence of market power. Accounting measures simply demonstrate whether a company is making a normal return such that it is worthwhile to keep making and selling a product. But earning normal accounting profits is *good*—if a company could not earn normal accounting profits it would not stay in business, even in a competitive market. Hendershott-Nevo Report (Ex. 65) ¶ 94. Thus, earning normal accounting profits does not suggest that a market is not competitive. *Id.* Even Dr. Evans concedes that exchanges are entitled to earn a "competitive return" on their depth-of-book data. Evans Report ¶¶ 35(a), 77.

Whether or not NYSE Arca earns a profit selling ArcaBook, the existence of

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21 In *dicta*, the D.C. Circuit suggested that pricing above marginal cost could be an indication that a market is non-competitive. *NetCoalition I*, 615 F.3d at 537 ("We do not mean to say that a cost analysis is irrelevant. On the contrary, in a competitive market, the price of a product is supposed to approach its marginal cost."). However, the court failed to take into consideration that depth-of-book data is a joint product. Even if the court's statement had validity in a non-joint product scenario, it has none in the joint products scenario *which all parties' experts agree* applies here.

vigorous competition prevents NYSE Arca from setting supracompetitive prices on ArcaBook because another platform could meet NYSE Arca's pricing on other dimensions and undercut its ArcaBook prices. *Id.* ¶ 55. Because the market is competitive, the Commission need not and should not become a rate-maker just because SIFMA members would like to pay less for market data to boost their own margins and enhance their positions as the Exchanges' direct competitors (a fact that should give Your Honor pause in considering SIFMA's arguments).

B. Competition For Order Flow Disciplines Depth-of-Book Data Pricing

In *NetCoalition I*, SIFMA conceded that NYSE Arca operates in a competitive market for order flow and did not dispute the SEC's findings that (i) "competition for order flow is fierce" among trading venues and (ii) "no exchange can afford to take its [order flow] market share percentages for granted." *NetCoalition I*, 615. F.3d at 539. Nor is there any dispute about the linkage between depth-of-book data and order flow; indeed, SIFMA reaffirms that linkage here. Evans Report ¶ 56 ("Depth-of-book data and order flow are interdependent."). The sole question posed by the D.C. Circuit was the directionality of this linkage.[22] The D.C. Circuit found insufficient evidence in the prior record to determine that order flow competition constrains market data prices, but recognized that if the target audience for depth-of-book data is responsible for enough trading compared to the non-target audience, then the availability of depth-of-book data could affect trading revenue in a way that constrains pricing. *NetCoalition I*, 615 F.3d at 540-41 & n. 14. That is precisely what the record here shows:

- The ArcaBook Filing demonstrates that competition for order flow constrains ArcaBook pricing because the more that potential customers are exposed to an exchange's data, the more likely those potential customers are to send orders to that

[22] *NetCoalition I*, 615 F.3d 539 ("The dispute centers on whether the connection [between order flow and market data prices] works both ways: not only that increased order flow makes market data more valuable but that more modestly priced market data drives increased order flow.").

exchange. Conversely, if data pricing dissuades traders from looking at the exchange's data, they are less likely to send orders to that exchange. *See* ArcaBook Filing (Ex. 1) at 15-21. Dr. Evans agrees that market data pricing can be used to drive order flow (Evans Report ¶¶ 25, 77), thus conceding the directionality that the D.C. Circuit expressed uncertainty about in *NetCoalition I*.

- Profs. Hendershott and Nevo provide further evidence that competition for order flow constrains ArcaBook pricing. When NYSE Arca began charging for ArcaBook in January 2009, NYSE Arca's share of trading volume relative to the rest of the market [redacted][23] This is consistent with the SEC's finding that the inseparable connection between order flow and market data "pressures exchanges not to take any action with respect to market data that might jeopardize [their] position in the competition for order flow" because to "do otherwise would jeopardize the exchange's own lifeline." ArcaBook Approval Order (Ex. 46) at 89.
- Eliminating any possible doubt, SIFMA members themselves have acknowledged this precise linkage between order flow and proprietary market data pricing, and have expressly used the threat of diverting order flow from an exchange to influence depth-of-book data pricing. The Exchanges' records include numerous unrebutted examples of SIFMA members switching, or threatening to switch, order flow in order to constrain depth-of-book prices and put downward pressure on the total costs of trading. Ordover Report ¶¶ 36-38. [redacted]

[redacted]

[redacted]

[23] *Id.* ¶ 70. SIFMA does not meaningfully address this evidence. Instead, SIFMA discounts the Hendershott-Nevo analysis on the basis that orders are placed individually but depth-of-book data is sold through monthly subscriptions. Donefer Report ¶¶ 48-49. SIFMA's speculative argument ignores that complementary products need not be sold on the same bases (Hendershott-Nevo Report (Ex. 65) ¶¶ 71-75) and ignores its own members' concessions in this regard. Moreover, NYSE Arca's experts will demonstrate at trial that SIFMA's criticism is incorrect.

[redacted]

- Finally, ArcaBook pricing is not optimized for a firm selling only depth-of-book data, but rather is consistent with the conduct of a firm seeking to maximize joint profits from a portfolio of products.[25] Hendershott-Nevo Report (Ex. 65) ¶¶ 71-75. The evidence shows that ArcaBook is priced in the inelastic region of the demand curve; a firm with market power would never do this—it would raise prices and thereby increase profits because the increased revenues from higher prices would more than offset any lost revenues from lost customers. Thus, the fact that NYSE Arca prices ArcaBook in the inelastic portion of the demand curve shows that (i) ArcaBook does not have market power, and (ii) NYSE Arca is pricing to try to maximize profits from the overall sale of complementary products. *Id.* ¶¶ 73-75. Indeed, depth-of-book data accounts for less than 9% of total revenue, whereas trading fees account for approximately two-thirds of revenues. Thus, if NYSE Arca prices ArcaBook too high, the amount of revenue gained from increasing the price ArcaBook would not offset the revenue lost from order flow. This significantly constrains ArcaBook pricing. *Id.* ¶ 75, Ex. 1.

C. Trader Behavior And The Availability Of Substitutes Shows That ArcaBook Pricing Is Constrained

NetCoalition I invited consideration of who uses depth-of-book data, the amount of trading they account for, and how they respond to changes in pricing for that data. *NetCoalition I*, 615 F.3d at 541 n. 14, 542-44. NYSE Arca submitted precisely that evidence in its rule filing, which shows that (i) some large traders on NYSE Arca did not believe that ArcaBook data was critical, (ii) large traders who did buy ArcaBook accounted for significant trading volume and have the ability to try to use that leverage to constrain proprietary market data pricing, and (iii) users were sensitive to the pricing of ArcaBook. ArcaBook Filing (Ex. 1) at 12-15. Critically, SIFMA has not tried to rebut that evidence. The Hendershott-Nevo Report

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24 [redacted]

25 SIFMA concedes that market data and trade execution are joint products. *See, e.g.*, Evans Report ¶¶ 22-26 (exchanges act as "multi-product platforms" and "multi-sided platforms").

provides additional evidence that the depth-of-book data products offered by other exchanges are substitutes that constrain the pricing of ArcaBook. Hendershott-Nevo Report (Ex. 65) ¶¶ 76-92. In addition, the DOJ has concluded that competing proprietary market data products are substitutes. *Id.* ¶ 80; supra § II.A. Finally, the evidence will show actual instances of large traders using their leverage.

SIFMA essentially ignores this evidence and instead tries to redefine the standard relied on by the D.C. Circuit and Commission to require that products be ***perfect substitutes*** to be considered competitive constraints. Donefer Report ¶¶ 71-81. According to Mr. Donefer, there can never be a substitute for one exchange's depth-of book data because each exchange's order book is necessarily unique at any given time. Donefer Report ¶¶ 71, 72. The D.C. Circuit has already rejected this idea. *NetCoalition I*, 615 F.3d at 543 ("***Depth-of book data from other exchanges could be an alternative***" if supported by sufficient evidence) (emphasis added). Thus, the issue before this Tribunal is whether there are *sufficiently* interchangeable or reasonable substitutes for ArcaBook *for enough of its user base* that their decisions could matter to NYSE Arca, not substitutes for every possible user under every possible condition. *NetCoalition I*, 615 F.3d at 542-43. The evidence establishes that there are.

- SIFMA argues that traders must buy all depth-of-book data. [redacted] In addition, a number of Nasdaq depth-of-book subscribers (i) never subscribed to ArcaBook or (ii) at some point stopped subscribing to ArcaBook. *Id.* ¶ 85. Furthermore, a comparison of OpenBook and ArcaBook customer lists shows a number of subscribers that (i) used either ArcaBook or OpenBook but not both over an extended period, or (ii) used both products but terminated their ArcaBook subscription at the time of an ArcaBook price increase. *Id.* ¶ 86. Market data subscribers can and do choose not to use all depth-of-book products at all times, and switch between depth-of-book products (sometimes more than once) over time.[26] ***This could not happen if SIFMA's arguments had any basis.***

- Empirical evidence directly contradicts SIFMA's assertions (Donefer Report ¶ 77) that competing depth-of-book products cannot be substitutes because the adequacy of depth-of-book data from a particular exchange varies by stock. Hendershott-Nevo Report (Ex. 65) ¶¶ 88-91. Depth-of-book products offered by different exchanges are effective substitutes because the exchanges have a large overlap in the stocks they trade—if a security is traded on one exchange, the probability that it is also traded on other exchanges is over 99%. *Id.* ¶¶ 88-90. In other words, during the trading day there is only negligible trading volume that is not covered by multiple exchanges. As a result, individual exchanges cannot maintain an exclusive hold on depth-of-book data for a particular stock, and consequently the depth-of-book data products supplied by different exchanges act as substitutes for market participants seeking depth-of-book information about a particular stock. *Id.* ¶ 91.

- SIFMA's position cannot be squared with statements by SIFMA's own members. [redacted]

D. The Value ArcaBook Provides To SIFMA Members Demonstrates That ArcaBook Prices Are Reasonable

SIFMA members who buy ArcaBook derive substantial revenues from it, which indicates that the prices charged are not unreasonably high. Although SIFMA members assert that the prices charged by NYSE Arca for ArcaBook are "outside a reasonable range of fees under the [Exchange Act]," neither SIFMA nor its members have come forward with any evidence to support that argument—SIFMA relies entirely on nine conclusory, self-serving and virtually identical declarations of SIFMA members in support of SIFMA's efforts to justify

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[26] *Id.* ¶ 87. Mr. Donefer's criticism (at ¶ 78) that Profs. Hendershott and Nevo ignored market participants who receive proprietary data from third party distributors such as Bloomberg and Reuters is misplaced. [redacted]. For this reason, Profs. Hendershott and Nevo were able to begin with identified Nasdaq proprietary data subscribers and look to see whether those confirmed Nasdaq subscribers do or do not subscribe to NYSE proprietary data products. Their analysis is not susceptible to Mr. Donefer's criticisms.

associational standing. SIFMA Member Declarations ¶ 9. But not a single SIFMA member has produced evidence supporting their assertions that ArcaBook prices are unreasonably high, or that any SIFMA member is unable to afford the fees for ArcaBook. That silence—in contempt of a subpoena issued by this Tribunal—is deafening.[27]

Also missing from SIFMA's case is any acknowledgement that SIFMA members resell depth-of-book data for a profit. For example, declarant Bloomberg L.P. "passes through" the usage fees for depth-of-book data and charges an additional fee to its customers for receiving the data (which additional fees are not shared with the Exchanges). *See* Ordover Report ¶ 54. As of June 2014, 4,586 of Bloomberg's professional clients received ArcaBook data feeds that had been redistributed to their Bloomberg terminals. *See* Clark Declaration ¶ 5. Bloomberg has been reported to mark up NYSE market data by more than 11%.[28] In addition, declarants Bank of America, Bloomberg L.P., Citigroup Global Markets Inc., Credit Suisse Securities (USA) LLC, JP Morgan Chase & Co., Liquidnet, Inc., and Wells Fargo & Company each paid at least $4000 or more per month for "non-display" access to ArcaBook, which permits these subscribers to engage in proprietary, for-profit activities, such as operating high frequency or algorithmic

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27 SIFMA's position is also in direct conflict with the Commission's 2014 Procedures Order. *Compare* 2014 Procedures Order at 14 ("an applicant cannot object to an SRO fee simply because it believes that it is too high.") *with* SIFMA Member Declarations ¶ 8 (conclusorily asserting that SIFMA members "suffer[] pecuniary harm by having to pay these fees").

28 *See* Atradia Report at 18. Indeed, fees paid to market data vendors like Bloomberg and Thompson Reuters have been reported to be between 65% and 80% of a market data consumer's spending, as compared to just 8% to 15% for fees paid to exchanges, and one report has estimated that Bloomberg and Thompson Reuters each had in excess of $4 billion in market data revenue in 2010. *Id.* at 21, 23. Similarly, JP Morgan Chase subsidiary Neovest, Inc. distributes ArcaBook data externally and collects fees it does not share with NYSE Arca. Clark Declaration ¶ 5. What market data purchasers do with the data they buy from the Exchanges is an important question SIFMA would rather not address. And the reason is obvious—the vendors who buy this data from Exchanges make far more than the Exchanges do. *See* Atradia Report at 23.

trading models, dark pools, and ATSs, from which they earn substantial profits. The fact that SIFMA members resell ArcaBook data for more than NYSE Arca charges and earns profits from their use of the data are powerful refutations of the argument that it is priced too high.

Moreover, SIFMA members compete with the Exchanges for order flow directly, by internalizing orders and operating competing exchanges, dark pools, and ATSs. For example, several owners of BATS are members of SIFMA and have submitted declarations in this proceeding, including Bank of America Merrill Lynch, Citadel, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, Instinet, J.P.Morgan, KCG, Morgan Stanley and Wedbush. *See* Ordover Report ¶ 11. Through their ownership of BATS, SIFMA members have been able to enter the exchange business and compete with the Exchanges for trade execution services *and* the sale of depth-of-book data. In addition, some SIFMA members (such as Goldman Sachs) operate dark pools and ATSs that compete with the Exchanges for order flow. Accordingly, SIFMA members earn substantial profits by using the exchanges' proprietary market data to run directly competing venues—they use the Exchanges' own market data to compete with the Exchanges for order flow itself. Of course SIFMA says nothing about this despite the fact that the value derived from market data is directly relevant to whether its price is reasonable.[29]

III. THERE IS NO SUBSTANTIAL COUNTERVAILING BASIS TO DETERMINE THAT NYSE ARCA'S PRICING OF ARCABOOK VIOLATES THE EXCHANGE ACT OR SEC RULES

SIFMA cannot meet its burden of establishing a "substantial countervailing basis to find that the terms [of the ArcaBook Filing] violate the Exchange Act or SEC rules."

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29 *See* Clark Declaration (Ex. 5), ¶¶ 3, 4. SIFMA and its members have stonewalled discovery and have not produced even a single document in response to the Exchanges' subpoena. SIFMA should thus be precluded from disputing NYSE Arca's conclusion that SIFMA members profit substantially from their use of ArcaBook. SIFMA had the chance to dispute that conclusion and waived it.

NetCoalition I, 615 F.3d at 532. Its arguments have (i) already been rejected by the SEC and (ii) amount to general pleas to public policy that have no place in a denial of access proceeding.

A. The Vast Majority Of Investors Do Not Need Depth-of-Book Data

SIFMA's argument is in large part based on the false premise that almost all investors need depth-of-book data from all exchanges. Mr. Donefer argues that depth-of-book data are essential for institutional investors, broker-dealers, and short term traders, and that these market participants "could not be commercially competitive without [depth-of-book] products." Donefer Report ¶¶ 36, 60-61. He also argues that depth-of-book data are critical for many retail investors, and goes so far as to suggest that retail investors "need to subscribe to the depth-of-book data products ***from several major exchanges***." Donefer Report ¶ 62 (emphasis added). This argument is not supported by evidence, is contrary to actual trader behavior, and has already been rejected by the SEC.

Mr. Donefer does not make any attempt to quantify how many market participants find depth-of-book data essential or the trading volume of these participants (and he makes no effort to dispute the evidence NYSE Arca submitted on these issues). He also fails to quantify the proportion of the market that subscribes to ArcaBook (or any depth-of-book data product) and offers no explanation for why so many traders do not purchase any depth-of-book product. Indeed, Mr. Donefer's own hypothetical example of an investor who needs depth-of-book data (Donefer Report ¶ 43)—an investor submitting an intermarket sweep order ("ISO")—*dis*proves his theory. *First*, ISOs are "typically used by institutional algorithmic investors, not retail investors." ArcaBook Filing (Ex. 1) at 13, n. 23. *Second*, even among this specialized, clearly non-retail class of institutional algorithmic investors, one-third of the top 30 users of ISOs on

NYSE Arca did not subscribe to ArcaBook.[30] *Id.*

In contrast, actual trader behavior establishes that most market participants neither need nor want depth-of-book data. Only a small number of market participants subscribed to ArcaBook ***even when it was free***. ArcaBook Filing (Ex. 1) at NYSE_ARCA_000145 (less than 250 accounts had ArcaBook access prior to ArcaBook becoming fee liable). There are also a number of investors who purchase only one of the Exchanges' products. Hendershott-Nevo Report (Ex. 65) ¶¶ 81-87. That most traders do not need depth-of-book data is underscored by the fact that depth-of-book data is implicated in only a small percentage of trades, because 96.7% of trades occur at or within the NBBO.[31] This evidence supports the SEC's previous conclusions that "depth-of-book data is most accurately characterized as useful, but not necessary, for professional traders" and that ArcaBook data is "both too narrow and too broad to meet the needs of most retail investors." ArcaBook Approval Order (Ex. 46) at 94, 107.

B. Best Execution Practices Are Not Impacted By Market Data Pricing

Mr. Donefer argues that, because of best execution obligations, "it is not an option" for broker-dealers, institutional investors, or short-term traders "to move any significant portion of their orders to a different exchange simply because they object to the price of an exchange's depth-of-book data products." Donefer Report ¶ 69. This argument fails because:

- Best execution is a broker-dealer concept and has nothing to do with orders placed directly by institutional investors or short-term traders.
- Substantial evidence supports the SEC's conclusion that the use of depth-of-book

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30 Mr. Donefer baldly asserts that order imbalance data is essential to "many major trading participants." Donefer Report ¶¶ 55, 65. But the evidence will show that the only investors who need or want order imbalance data are sophisticated institutional investors operating highly specialized trading strategies.

31 *Id.* ¶ 29. Mr. Donefer dismisses this figure, arguing that order size can be larger than what is available upon execution. Donefer Report ¶ 63. But the study he relies upon was thoroughly discredited by the SEC. *See* ArcaBook Approval Order (Ex. 46) at 77-97.

data is not necessary to satisfy broker-dealers' best execution obligations. ArcaBook Approval Order (Ex. 46) at 75-77.

- Mr. Donefer neither acknowledges nor attempts to address the evidence put forward by the Exchanges that (i) such shifting of order flow in fact happens, (ii) traders have threatened to move order flow despite best-execution obligations, and (iii) they have followed through on such threats.

Mr. Donefer's speculation simply cannot be squared with the real world evidence.

C. SIFMA's Arguments Are Contrary To Public Policy

Despite fashioning its rule challenge as a "denial of access" proceeding, SIFMA does not argue that depth-of-book data products are too expensive for investors to purchase. SIFMA has abandoned the notion that the prices for depth-of-book data are so high that some entities are completely unable to purchase the data, as no one made such an assertion and SIFMA provided no evidence to support such a claim. Thus SIFMA no longer contends that anyone has been "denied" access by the fees for ArcaBook.

Dr. Evans asserts that by making depth-of-book data more widely available, "the public benefits from more efficient and transparent financial markets." Evans Report ¶ 17. Aside from the fact that Dr. Evans does not explain how wider dissemination of data that is only relevant to 3.3% of transactions would do that, the result of adopting SIFMA's argument would be the opposite. Dr. Evans asserts that the Exchanges price depth-of-book data products high to enable them to charge low transaction execution prices, but increasing trading costs to subsidize cheaper depth-of-book data would harm 96.7% of transactions to benefit the 3.3% that use depth of book data. Assuming Dr. Evans' theory for the sake of argument only, with higher trading costs, order flow on the Exchanges would likely decrease and be redirected to ATSs and dark pools (again, run by SIFMA members), an outcome SIFMA recognizes is likely because "[d]epth-of-book data and order flow are interdependent." Evans Report ¶ 56. Not only would markets become less competitive and less efficient, trading would become more concentrated on unlit venues, *reducing* transparency. This is not the forum to pursue such a radical restructuring of the securities regulation regime.[32]

Finally, the heart of SIFMA's case is that the Exchanges' proprietary market data is so important that it should be priced at a level that would enable every investor to obtain every exchange's data. *See* Evans Report ¶ 79. In other words, that the Commission should essentially mandate a consolidated depth-of-book product. But the Exchanges are free to sell or not sell whatever proprietary data products they wish (*NetCoalition I*, 615 F.3d at 530, n. 6; 2014 Procedures Order at 14) and SIFMA's argument is also contrary to Regulation NMS's goal of letting market forces determine data products and fees. *See* ArcaBook Approval Order (Ex. 46) at 45. The SIFMA Application is thus a legislative proposal dressed up as a denial of access petition and should be rejected as such.

CONCLUSION

For all the foregoing reasons, and on the basis of the evidence that will be presented at the hearing, NYSE Arca respectfully submits that the SIFMA Application should be dismissed.

[32] Accepting Dr. Evans' argument that order flow competition tends to reduce the dissemination of depth-of-book data (Evans Report ¶ 55) would require this Tribunal to completely disregard all evidence concerning the dissemination of market data in the real world, because that evidence shows that depth-of-book data is already being distributed to nearly the widest possible group of investors who want it. As shown in the ArcaBook Filing, for example, few customers subscribed to ArcaBook even when it was free. *See* ArcaBook Filing (Ex. 1) at NYSE_ARCA_000145.

Respectfully submitted,

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Dated: March 27, 2015

CERTIFICATE OF SERVICE

I hereby certify that on March 27, 2015, I caused a copy of the foregoing Prehearing Brief of NYSE Arca, Inc. to be served on the parties listed below via the methods set forth for each recipient.

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