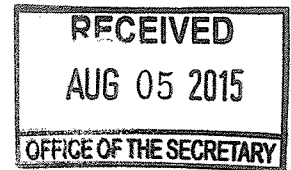


UNITED STATES OF AMERICA  
before the  
SECURITIES AND EXCHANGE COMMISSION



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 Murray,  
Chief Administrative Law Judge

**POST-HEARING REPLY BRIEF OF THE NASDAQ STOCK MARKET LLC**

CONTAINS HIGHLY CONFIDENTIAL INFORMATION

REDACTED VERSION

## TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION .....	1
II. ARGUMENT .....	3
A. SIFMA’s Argument That Nasdaq’s “Depth-Of-Book Data Fees Have Continued To Increase And Proliferate” Over The Past Decade Is Untrue .....	3
B. The Evidence Shows That The Exchanges Are Subject To Significant Competitive Forces .....	6
1. The Vast Majority Of Traders Can Switch Products, Reduce Usage, Or Drop Depth-Of-Book Data, Which Constrains Depth-Of-Book Data Pricing .....	6
(i) The vast majority of market participants do not need depth-of-book data from all major exchanges; SIFMA can point to no evidence to the contrary .....	6
(ii) SIFMA has identified no basis to conclude that the Exchanges are immune from competitive forces when selling to customers who do not require all depth-of-book data from all major exchanges .....	9
(iii) The evidence shows that customers can and do switch, undermining any claim of market power .....	9
2. Competition For Order Flow From Large Banks And Electronic Trading Firms Imposes Powerful Competitive Constraints On Depth-Of-Book Data Pricing .....	11
3. SIFMA Mischaracterizes The Evidence Relating To Nasdaq’s Marketing Efforts And Innovations .....	17
C. No Customer Has Been Denied Access To Nasdaq’s Depth-Of-Book Data By Any Fee Charged By Nasdaq .....	20
D. SIFMA’s Attempt To Rely On Snippets Of Public Statements By Nasdaq Executives Is Unavailing .....	21
E. SIFMA’s Argument That Nasdaq’s Prices Should Match Its Marginal Costs Is Unfounded And Was Rejected By SIFMA’s Economist .....	22
III. CONCLUSION .....	25

TABLE OF AUTHORITIES

Page(s)

Cases

*Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*,  
509 U.S. 209 (1993)..... 5

*Hall v. CIA*,  
538 F. Supp. 2d 64 (D.D.C. 2008)..... 16

*Huthnance v. D.C.*,  
722 F.3d 371 (D.C. Cir. 2013)..... 8

*Matter of James Wilson Assocs.*,  
965 F.2d 160 (7th Cir. 1992)..... 16

*UAW v. NLRB*,  
459 F.2d 1329 (D.C. Cir. 1972)..... 9

Other Authorities

*Antitrust and the Information Age: Section 2 Monopolization Analyses in the New Economy*,  
114 Harv. L. Rev. 1623 (2001)..... 25

## I. INTRODUCTION

Only one side in this evidentiary hearing presented evidence. The Exchanges introduced testimony from the businesspeople responsible for pricing and selling depth-of-book data, ordinary-course business documents, and data—evidence demonstrating that they are subject to significant competitive forces when they price and sell depth-of-book data. For example, Nasdaq presented the testimony of Mr. Oliver Albers, the Head of Sales for Nasdaq Global Data Products, who testified that Nasdaq’s data customers “have built infrastructure to switch back and forth” between data from different exchanges (Albers Tr. 443), customers can and do switch their data purchases from one exchange to another (*id.*) or “scale back their usage of the TotalView data” (Albers Tr. 465), and the threat of customers switching or reducing the intensity of their purchases constrains Nasdaq’s pricing for its depth-of-book products. Albers Tr. 495 (“if we make any errors in terms of our pricing strategy, . . . the likes of BATS and NYSE will be ready to step in and provide a competitive product and displace us wherever they can”).

Mr. Albers also testified that there are fewer than 100 large banks and electronic traders who “consume . . . the full content” of Nasdaq’s depth-of-book data for nondisplay use, which “account for 90 percent plus of the order flow” on the Nasdaq equities exchange (Albers Tr. 535), giving these customers “the upper hand in almost all of our negotiations” (Albers Tr. 451). As Mr. Albers explained, “if we are too aggressive on our pricing on the data side, customers can penalize us by routing order flow away from our market,” which would have severe negative consequences for Nasdaq’s business. Albers Tr. 416. Accordingly, Mr. Albers testified that Nasdaq factors these competitive forces into its depth-of-book pricing decisions, including by reaching out to customers to get their feedback on pricing decisions to ensure that its depth-of-book pricing decisions will not prompt customers to penalize Nasdaq or adversely impact Nasdaq’s transactions business. Albers Tr. 496-497. Nasdaq presented evidence of these

competitive forces not only through the testimony of Mr. Albers and Mr. Lee Shavel (Nasdaq's Chief Financial Officer), but also through numerous ordinary-course business documents that reflect the power of these competitive forces on Nasdaq's pricing decisions, as well as expert testimony from Professor Janusz Ordover.

In contrast, SIFMA made a calculated choice to withhold from this hearing the evidence possessed by its members. SIFMA produced no witnesses, documents, or data from any member to support its arguments. This was not for lack of relevance, since SIFMA boasts membership that includes some of the largest and most sophisticated purchasers of depth-of-book data in the world. And this was not for lack of access, since SIFMA's members made themselves available to SIFMA's expert for interviews (which were disclosed to the Exchanges only during trial).

SIFMA's failure to offer any evidence is striking, and thoroughly undermines its positions. For example, SIFMA argues that its members have "little practical ability to shift their order flow in response to market data fees." SIFMA Br. 34. But SIFMA was unable to produce a witness who could testify to that under oath. And its argument was contradicted by the evidence that traders can and do shift order flow in massive quantities—indeed, this power to move order flow underlies the intense competition among exchanges to attract order flow. Similarly, SIFMA argues that the depth-of-book data fees paid by high-frequency traders and mammoth banks adversely impact "ordinary Americans." SIFMA Br. 3. But there is no evidence that depth-of-book data fees to high-frequency traders who trade for their own accounts adversely impact any "ordinary American." *See Donefer Tr. 1026-27* (the largest purchasers of Nasdaq depth-of-book data for non-display use are trading enterprises that trade for their own account—not mutual fund managers). And there is no evidence that "ordinary Americans" would gain if multi-billion dollar enterprises paid a few thousand dollars less a year for data.

Similarly, SIFMA's assertion (at 58) that the Exchanges have "set prices beyond the reach of . . . many investors" is fiction. No SIFMA member testified under oath that it (or anyone else) has been denied access to any data by any fee charged by Nasdaq. To the contrary, the evidence demonstrates *widespread* access to proprietary market data. The reality is that most people do not need this data—not that the Exchanges have prevented access to it. As Mr. Albers testified without rebuttal, "[a]ny retail customer can get access to our Depth-of-Book data, many times free of charge from a retail on-line broker" and "[t]hey can also come directly to our website and . . . pay \$14 a month to get access to this information. This type of information has never been more readily available than it is now." Albers Tr. 384-385.

Moreover, SIFMA does not even attempt to point to evidence that could possibly suggest that the Nasdaq fee change at issue in this proceeding—which merely harmonized Level 2 fees with fees that already existed for TotalView and OpenView—limited anyone in any access to any product. *See* Nasdaq Post-Hearing Br. 36-37. There is no such evidence.

Lacking its own evidence, SIFMA devotes its post-hearing brief to ignoring or distorting the evidence presented by the Exchanges. Similarly, SIFMA ignores its experts' concessions at the hearing, and instead attempts to revert to the discredited assertions in their pre-hearing reports. But SIFMA's arguments are not supported by any evidence, and are not entitled to any weight.

## II. ARGUMENT

### A. **SIFMA's Argument That Nasdaq's "Depth-Of-Book Data Fees Have Continued To Increase And Proliferate" Over The Past Decade Is Untrue**

The bulk of SIFMA's theoretical arguments are premised on the assertion that, "[s]ince becoming public companies [in 2006], the Exchanges' depth-of-book data fees have continued to increase and proliferate." SIFMA Br. 12. For example, SIFMA attempts to brush aside the

evidence of customer switching and customers' threats to shift order flow based on its argument that there should have been more examples of such behavior in an environment in which fees were supposedly continually increasing. See SIFMA Br. 19, 22-23. But the foundation of SIFMA's arguments—that is, that “depth-of-book data fees have continued to increase and proliferate”—was thoroughly discredited. Indeed, it is remarkable that SIFMA now returns to this theme without even attempting to address the contrary evidence presented at the hearing.

For example, the evidence—which SIFMA ignores—demonstrated the following:

- Nasdaq *reduced* its professional subscriber fee for TotalView (its flagship depth-of-book data product) by more than 50 percent in 2003, and *it has not increased the fee since 2003*. Albers Tr. 453. See also NQ-DEMO 5.
- In 2003, Nasdaq established a \$14/month subscription for non-professional subscribers to TotalView, and *it has not increased the fee since 2003*. Albers Tr. 452-453.
- Nasdaq's professional subscriber fee for OpenView has remained just \$6/month since 2003. *Nasdaq has not increased the fee since 2003*. Albers Tr. 454-455.
- In 2007, Nasdaq *reduced* its non-professional subscriber fee for OpenView from \$6/month to \$1/month, and *it has not increased the fee since then*. NQ 545; 72 Fed. Reg. 19,567; see also NQ DEMO 5.
- In 2005, Nasdaq restructured its distribution fee for TotalView from \$7,500/month to \$2,500/month for external distribution and \$1,000/month for internal distribution. *It has not increased the fees since then*. 70 Fed. Reg. 22,162; see also NQ-DEMO 5.

Nasdaq's Post-Hearing Brief (at 27-29) described additional examples of fees that have been reduced or unchanged in this period, which SIFMA ignores as well. Significantly, SIFMA argues that fees set before 2006 were constrained by the Exchanges' ownership structures. SIFMA Br. 5. Thus, given that Nasdaq's fees to most users of depth-of-book data have not been raised since before 2006—even as Nasdaq has greatly expanded the datasets and added technical enhancements—SIFMA's criticisms of Nasdaq's fees are puzzling, at best.

At the hearing, Mr. Albers dissected a highly misleading demonstrative introduced by SIFMA that was entitled “New Monthly Fees and Increases for TotalView and OpenView”

(SIFMA 379), explaining that most of the purported “new monthly fees and increases” were either fee *reductions* or were not changes at all. *See* Albers Tr. 454-73. And Mr. Albers explained that in the handful of instances in which Nasdaq increased prices for some types of customers, the impact of these increases was minimal and often led to savings for users downstream. *See id.* SIFMA, remarkably, does not even attempt to address this testimony thoroughly discrediting its demonstrative, but instead simply returns to its unfounded assertion that “depth-of-book data fees have continued to increase and proliferate.”

Indeed, the only instance of a meaningful price increase during the entire period was Nasdaq’s initiation of higher pricing tiers for nondisplay users in April 2012. The mere fact of a price increase, however, does not imply the absence of competitive forces. SIFMA’s flawed logic implies that prices in a competitive market can never increase, a proposition at odds with basic economics. In the case of nondisplay use, higher prices are fully consistent with higher demand by high-intensity computer data users who were consuming the data at a far greater rate and were deriving far greater value than the human users who comprised Nasdaq’s customer base when its depth-of-book data fees were established in 2003. *See* Nasdaq Post-Hearing Br. 29-30. There is no basis to suggest that this higher pricing in response to changes in customer demand caused any harm to customers or reflected any lack of competition. *See, e.g., Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 232 (1993) (“Only if . . . higher prices are a product of nonmarket forces has competition suffered. If prices rise in response to an excess of demand over supply . . . the market is functioning in a competitive manner. Consumers are not injured from the perspective of the antitrust laws by the price increase; they are in fact causing them.”).

Similarly, SIFMA ignores and mischaracterizes the evidence in arguing that “Nasdaq



imposed a number of price increases between 2008 and 2012, but determined that its pricing caused no loss of customers for its flagship TotalView product.” SIFMA Br. 22-23. SIFMA bases this assertion on a Nasdaq document that concluded that its decision to bundle “TotalView and OpenView fees into one entitlement” led to “close to zero” attrition for TotalView, and “around 10 percent” attrition for OpenView. SIFMA Br. 23 (citing SIFMA-132 at 665).

But as Mr. Albers testified (and as is clear on the face of the document), the document is *not* describing a fee increase, but rather “[i]t’s describing an administrative change that we made to bundle the TotalView and OpenView fees together into one entitlement. So these were fees that were already in existence and were just put into one entitlement.” Albers Tr. 498-499. The document reflects an increase in consumption after the bundling, followed by a decrease that was attributed to the financial crisis—which led to Nasdaq’s conclusion that the decision to bundle the two entitlements together had not caused TotalView consumption to decline. Albers Tr. 499-500. As Mr. Albers explained, “[t]he zero attrition number was just specific to bundling TotalView and OpenView”—it had nothing to do with any other pricing action. Albers Tr. 501.

That SIFMA would attempt to pass this document off as an analysis of the impact of “a number of price increases”—while ignoring the unrebutted testimony from Mr. Albers that explains the opposite—is indicative of SIFMA’s approach to the evidence in this case.

**B. The Evidence Shows That The Exchanges Are Subject To Significant Competitive Forces**

**1. The Vast Majority Of Traders Can Switch Products, Reduce Usage, Or Drop Depth-Of-Book Data, Which Constrains Depth-Of-Book Data Pricing**

- (i) **The vast majority of market participants do not need depth-of-book data from all major exchanges; SIFMA can point to no evidence to the contrary**

SIFMA’s only theory supporting its claim that the Exchanges are immune from competitive forces is its assertion that depth-of-book data from all major exchanges are

“essential to many traders” and therefore “traders must acquire the data from all major exchanges.” SIFMA Br. 9-10. It is undisputed, however, that the vast majority of traders do *not* require depth-of-book data from all major exchanges. Indeed, most traders do not purchase any depth-of-book data at all. For example, Prof. Donefer conceded that retail investors do not require depth-of-book data from all major exchanges. Donefer Tr. 1005. Moreover, out of roughly [REDACTED] professional traders, less than [REDACTED] percent—about [REDACTED] professional traders—subscribe to Nasdaq’s TotalView product. *See* Nasdaq Post-Hearing Br. 13-14. And with respect to the professional users who purchase Nasdaq’s TotalView product for display usage (that is, the data is displayed on a screen to be viewed by a person, not processed electronically by a server), SIFMA offers no explanation for how these users can even process all depth-of-book data from all major exchanges—much less evidence that there are many (or even any) such users for whom all depth-of-book data is essential.<sup>1</sup>

In his report, Prof. Donefer emphasized that the users who acquire all depth-of-book data are the users who consume all of the data directly from the exchanges so they can execute complex trading strategies for which visibility into all major markets is essential to achieving lucrative returns from trading. Donefer Report ¶¶ 51-54, 64; *see also* Donefer Tr. 1004. Even accepting Prof. Donefer’s assertions at face value, the evidence at the hearing demonstrated that there are only roughly 100 such customers of depth-of-book data—the massive banks and electronic trading firms that operate approximately 5,000 servers and control about 90 percent of trades on Nasdaq’s equities exchange. *See* Nasdaq Post-Hearing Br. 20.

---

<sup>1</sup> For example, SIFMA claims that Professor Donefer brought depth-of-book data with him to the hearing (SIFMA Br. 9 n.4), but in reality he brought screenshots that showed only a tiny fraction of the depth-of-book data for even a single stock. Donefer Tr. 977-80. By the time a human user could scroll through even a small fraction of the data, the data displayed would already be stale. *Id.*; *see also* SIFMA Br. 11 (“data may be obsolete within microseconds”).

SIFMA now suggests that there may be more traders who require all depth-of-book data beyond the roughly 100 firms that purchase data for server-based non-display use, but it points to no evidence in support of that proposition—because none was presented at the hearing. Prof. Donefer testified that he has not “done any research” regarding the number of firms for whom all depth-of-book data is essential. Donefer Tr. 1033. Nor did SIFMA present any fact or expert testimony explaining how a non-computer user could process the depth-of-book data from all major exchanges and execute a trading strategy in the “microseconds” before the data becomes stale. If there were such users in the trading community, SIFMA would have access to them and should have presented *evidence* of their existence. But it did not.

Similarly, SIFMA speculates that brokers “may” feel a need for full depth-of-book data from all exchanges in order to have complete visibility into all exchanges so they can satisfy their best-execution obligations. SIFMA Br. 5-6. But there was no evidence from any SIFMA member in support of this proposition at the hearing; the SEC has stated exactly the opposite in the ArcaBook Order (*see* Nasdaq Post-Hearing Br. 26 n.6); and the evidence shows that brokers route many trades to dark pools, presumably satisfying their best-execution obligations despite having no depth-of-book data for the dark pool.

On this point and others, where the question at issue is SIFMA members’ behavior, SIFMA should not be heard to ask for inferences about how its members might behave. SIFMA has access to evidence about these members’ behavior—as it demonstrated when it had its members attest to standing and meet with its experts for undisclosed fact interviews. Where, as here, a party has access to evidence that it does not produce in a proceeding, the proper inference is that the evidence is unfavorable to the party that chose not to produce it. *See, e.g., Huthnance v. D.C.*, 722 F.3d 371, 378 (D.C. Cir. 2013) (“The missing evidence rule provides that when a

party has relevant evidence within his control which he fails to produce, that failure gives rise to an inference that the evidence is unfavorable to him.”); *UAW v. NLRB*, 459 F.2d 1329, 1336 (D.C. Cir. 1972) (holding that agency’s failure to draw adverse inference from party’s failure to produce evidence was arbitrary and capricious).

**(ii) SIFMA has identified no basis to conclude that the Exchanges are immune from competitive forces when selling to customers who do not require all depth-of-book data from all major exchanges**

As Mr. Albers testified at the hearing, if Nasdaq “make[s] any errors in terms of [its] pricing strategy,” NYSE and BATS “will be ready to step in and provide a competitive product and displace us wherever they can.” Albers Tr. 495. Indeed, Nasdaq’s depth-of-book data customers—most notably, the retail brokers who comprise some of Nasdaq’s largest and most important customers for depth-of-book data—“have built infrastructure to switch back and forth” between data from different exchanges, and these customers can and do switch their data purchases from one exchange to another. Albers Tr. 443. In this marketplace, there is no reason to conclude that any of the competing exchanges is immune from competitive forces.

SIFMA offers neither a coherent theory nor any evidence to suggest that any of the exchanges is free from competitive forces in its sales to these customers. SIFMA’s theory of market power is that it is essential for customers to purchase all data products, and therefore each supplier has market power. SIFMA Br. 9-10. But that theory plainly does not apply to customers who do not require data from all major exchanges, which covers the vast majority of users of depth-of-book data (including all non-professional users and all professional users who purchase the data for display use). SIFMA has offered nothing else.

**(iii) The evidence shows that customers can and do switch, undermining any claim of market power**

As discussed in Nasdaq’s Post-Hearing Brief, the evidence showed that Nasdaq’s

customers can and do switch between the competing exchanges—including customers that switch all of their purchases, and other customers that reduce their intensity of purchases from one exchange while purchasing more from another.<sup>2</sup> For example, Professor Ordover identified more than [REDACTED] firms that had switched all of their purchases between NYSE Arca and Nasdaq; Mr. Albers testified about “customers moving back and forth between different products”; additional evidence showed large customers (including large online retail brokers) who purchase depth-of-book data from Nasdaq and not NYSE Arca and therefore could switch if Nasdaq’s prices were too high; and other evidence of customer churn. *See* Nasdaq Post-Hearing Br. 15-16.

In the face of this evidence, SIFMA can no longer argue that customer switching among the exchanges’ competing data products is impossible. Instead, SIFMA now argues that there should have been even more switching. SIFMA Br. 23-24. SIFMA, however, offers no methodology to assess how much switching would be enough. And it offers no evidentiary support for its argument that there should have been more departures from Nasdaq’s customer base, given that Nasdaq’s prices to most users have remained at the same low levels for many years. *See supra* at 4. Indeed, the fact that Nasdaq has been successful in retaining its customers is entirely consistent with the evidence showing that Nasdaq generally has not raised its prices in more than a decade.<sup>3</sup> Where a company retains customers by offering consistently low prices for

---

<sup>2</sup> SIFMA claims that “Nasdaq lost only [REDACTED] of its revenue after imposing a major price increase in 2012,” but that figure reflects only losses associated with customers who switched from Nasdaq to NYSE Arca. SIFMA Br. 2, 24. This figure fails to account for customers switching to BATS data or partially reducing usage of Nasdaq data (such as [REDACTED], which dramatically reduced its server usage following the price change in question). In fact, SIFMA’s own expert calculated a [REDACTED] total loss in revenue in 2012 (more than double the [REDACTED] loss in 2011). *See* Evans Report at Exh. 3 (column labeled “Evans Calculation”).

<sup>3</sup> SIFMA’s argument that Nasdaq can only meet its burden of proof by showing substantial customer loss implies that Nasdaq would be required to raise its prices in an irrational fashion to meet its burden of proof. But the Commission required no such thing in the ArcaBook Order.

quality products that customers value, there is no basis to conclude that it is immune to competitive forces. And the fact that Nasdaq has *responded* to competitive pressures by maintaining low prices while continually improving its products cannot be twisted to support a conclusion that Nasdaq does not face competitive pressures.

**2. Competition For Order Flow From Large Banks And Electronic Trading Firms Imposes Powerful Competitive Constraints On Depth-Of-Book Data Pricing**

As set forth in detail in Nasdaq's Post-Hearing Brief, the evidence at the hearing demonstrated that (i) the machine-based users of depth-of-book data who supposedly require all data from all exchanges control an enormous share of order flow, which is the life blood of exchanges; (ii) these customers can and do shift their order flow among exchanges to extract economic concessions from the exchanges (including hundreds of millions of dollars in rebates paid each year to attract order flow); (iii) these customers regularly use the power of their order flow and the threat to pull order flow as a negotiating tactic when dealing with the exchanges, including in relation to depth-of-book data pricing; and (iv) this competitive pressure has in fact constrained Nasdaq's depth-of-book data pricing. *See* Nasdaq Post-Hearing Br. 20-26.

As Mr. Albers testified, customers' control over order flow means that these customers "have the upper hand in almost all of [Nasdaq's] negotiations. . . . Without the order flow, Nasdaq really doesn't exist." Albers Tr. 451. Accordingly, when Nasdaq considers its depth-of-book pricing, it "do[es] a lot of internal analysis, modeling out what the different pricing changes would look like, what we think the potential individual client impacts are," because Nasdaq's depth-of-book pricing decisions can impact its transactions and listings businesses. Albers Tr. 496-97. The evidence also showed that Nasdaq has reduced its depth-of-book fees in response to the risk that customers would shift order flow because of a pricing change. Albers Tr. 506-08.

At the hearing, Prof. Donefer agreed that "[t]here is significant competition for order

flow,” and that “each of the venues is very afraid of losing order flow.” Donefer Tr. 1042. And while he insisted that customers may not be able to move *all* of their order flow, he acknowledged that customers could shift substantial order flow from one exchange to another—with an impact of “millions of dollars”—if the customers “wanted to punish Nasdaq” for its data pricing. Donefer Tr. 1042-43.

If there were any doubt about customers’ ability to shift order flow in response to depth-of-book data pricing, [REDACTED] provided conclusive evidence of this power in an email to Nasdaq, in which [REDACTED]

[REDACTED]

NQ 505. In fact, [REDACTED] of orders away from Nasdaq’s equities exchange to punish Nasdaq for its depth-of-book data pricing. *See* NQ 506; NQ 619; Albers Tr. 512.

SIFMA’s only response to the evidence is to insist that the evidence does not exist. For example, SIFMA argues that “traders have little practical ability to shift their order flow in response to market data fees.” SIFMA Br. 34. But SIFMA’s position is contradicted by the existence of intense competition to attract order flow, the undisputed fact that Nasdaq and other exchanges pay hundreds of millions of dollars per year to attract order flow—which would make no sense if traders had “little practical ability to shift their order flow”—and the undisputed fact that the Exchanges are “very afraid of losing order flow” (Donefer Tr. 1042). *See* Nasdaq Post-Hearing Br. 25-26. The evidence demonstrated that traders can move massive amounts of order flow for any reason, including in response to market data fees. *See, e.g.*, Albers Tr. 504-14. Not surprisingly, SIFMA did not present any fact witness from any of its members to testify under

oath that traders cannot shift order flow in response to market data fees.<sup>4</sup>

Similarly, SIFMA attempts to dismiss the evidence of customers' threats to pull order flow in response to data prices by asserting that "there is no evidence that these were credible threats." SIFMA Br. 37. But again, SIFMA ignores the evidence presented at the hearing. Most notably, the evidence showed that Nasdaq—the recipient of the threats—in fact viewed them as credible and responded to them because they were credible. For example, when Mr. Albers was asked why he regarded [REDACTED] threat to pull order flow as being credible, he explained:

Because we knew they were credible, and customers have a history of moving order flow. Like I said, it's very portable, and we've had clients move order flow because our CEO didn't say the right thing in the press. And so we knew it was credible, and we did everything we could to keep it. We escalated to senior management. As you can see in this document, this was a prep doc for us to brief Bob Greifeld, who's our CEO, on this issue. So these are things we take very, very seriously, and we knew it was credible.

Albers Tr. 514; *see also*, e.g., Albers Tr. 530-534 ([REDACTED]); [REDACTED]; 496-97 (Nasdaq considers potential impact on order flow when it is considering a depth-of-book data fee change); 386 (threats from customers "are not rare. I have these discussions all the time."). Even SIFMA's expert acknowledged that these threats were credible. Donefer Tr. 1042-43. And, significantly, SIFMA presented not a shred of evidence from any of its members suggesting that they did not make threats to pull order flow or viewed them as not being credible. Not a single representative from any SIFMA member testified to such a story.

In addition, the evidence demonstrated that competition for order flow has in fact constrained Nasdaq's depth-of-book prices. For example, as discussed in detail in Nasdaq's

---

<sup>4</sup> As noted above, SIFMA is not entitled to any inferences in its favor about trader behavior in this area, where SIFMA was in possession of the evidence but declined to present it at the hearing. *See supra* at 8-9.





test such a counter-factual story.

Furthermore, SIFMA asks Your Honor to ignore the evidence that [REDACTED] [REDACTED] and pulled [REDACTED] of its order flow away from Nasdaq's equities exchange, and has kept that order flow away for [REDACTED]. See NQ 619. Instead, SIFMA asks Your Honor to adopt the fiction that [REDACTED] "was only able to pull [order flow] for a short period of time." SIFMA Br. 36. SIFMA, of course, could have produced [REDACTED] to testify to this if it were true—or even documents or data from [REDACTED] to support the story—but it did not do so. Instead, SIFMA asks Your Honor to disregard the evidence presented at the hearing, including the data showing [REDACTED] order flow to Nasdaq (NQ 619), based on its baseless accusation that Nasdaq "sandbagged" SIFMA. SIFMA Br. 36. But Nasdaq did not sandbag SIFMA. The need for this evidence about [REDACTED] order flow arose because SIFMA's expert (Dr. Evans) testified during the late stages of the hearing about what [REDACTED] supposedly told him during a previously undisclosed meeting (which was not disclosed in Dr. Evans' report, and for which Dr. Evans' assistant's notes were not produced). See Evans Tr. 1192-93. Moreover, what [REDACTED] stated to Dr. Evans in that meeting—out of court, not under oath, supported by no evidence, and followed up with no investigation—was demonstrably false, as Dr. Evans himself conceded when presented with NQ 619. In response to this repetition of false out-of-court statements from an undisclosed meeting, Nasdaq introduced data reflecting [REDACTED] order flow to set the record straight. Accordingly, SIFMA's assertion that Nasdaq has engaged in "sandbagging" is utterly unfounded.

SIFMA's efforts to distort the evidence do not stop there, however. SIFMA asserts that the data showing [REDACTED] dramatic and extended drop in order flow "does not undermine the evidence that [REDACTED] 'was only able to pull [order flow] for a short period of time' because 'it

was just costing [REDACTED] too much.” SIFMA Br. 36. But the purported “evidence” to which SIFMA refers is not evidence at all. SIFMA cites *not* the testimony of a fact witness or documentary evidence or data, but rather the testimony of its economic expert, who was reciting what [REDACTED] supposedly told him in an out-of-court meeting. *Id.* (citing Evans Tr. 1192-93). It is well-established, however, that an expert witness’s recitation of a hearsay statement is not evidence.<sup>5</sup> Moreover, Dr. Evans testified that he *did not bother to ask for* the data in [REDACTED] possession that would have allowed him to test [REDACTED] assertions. In Dr. Evans’ words, he “didn’t see a reason to look at the facts” relating to [REDACTED]. Evans Tr. 1195. Dr. Evans testified that his “gold standard of evidence” is “what the customers do and not what they say” (Evans Tr. 1193), and yet, when dealing with [REDACTED], Dr. Evans testified about what [REDACTED] told him and made no effort to look at facts about what [REDACTED] actually did. And, of course, if there actually were evidence that [REDACTED] was only able to pull its order flow from Nasdaq “for a short period of time because it was costing [REDACTED] too much” (SIFMA Br. 36), then SIFMA should have produced a witness or evidence from [REDACTED] to prove it. SIFMA previously produced a declaration from [REDACTED] in this proceeding, so it plainly had the ability to bring him before this Tribunal if he could support SIFMA’s story under oath. But SIFMA did not do so, because the story SIFMA offers here is simply not true.

Finally, instead of producing evidence, SIFMA asks a rhetorical question: “[W]hy didn’t

---

<sup>5</sup> See, e.g., *Hall v. CIA*, 538 F. Supp. 2d 64, 72-73 (D.D.C. 2008); *Matter of James Wilson Assocs.*, 965 F.2d 160, 173 (7th Cir. 1992) (“The fact that inadmissible evidence is the (permissible) premise of the expert’s opinion does not make that evidence admissible for other purposes . . . . If for example the expert witness (call him A) bases his opinion in part on a fact (call it X) that the party’s lawyer told him, the lawyer cannot in closing argument tell the jury, ‘See, we proved X through our expert witness, A.’”). Here, SIFMA’s effort to sneak [REDACTED] untruthful out-of-court statements into evidence through Dr. Evans’ testimony is even more attenuated, because Dr. Evans testified that he did *not* rely on [REDACTED] statements as the basis for any of his opinions. See Evans Tr. 1190-91.



indicia of the robust competition for the sale of depth-of-book data. Consistent with its approach throughout its brief, SIFMA responds by mischaracterizing and ignoring the evidence.

For example, SIFMA attempts to brush aside Nasdaq's extensive marketing efforts (*see* Albers Tr. 419-38) by pointing to one marketing document that remained fairly consistent for a few years (*see* Albers Tr. 623-24) and, based on this one advertisement, asserting that "Nasdaq's marketing material for TotalView has not changed in content or format for at least six years—simply regurgitating the same features year after year." SIFMA Br. 55. But pointing to one advertisement obviously does not support that sweeping conclusion. Moreover, SIFMA simply ignores the testimony and documents presented at the hearing, including Mr. Albers' detailed testimony regarding a range of different marketing documents that plainly contradict SIFMA's contention. *See* Albers Tr. 419-38 (and exhibits cited therein). Likewise, SIFMA ignores the numerous additional marketing documents that Nasdaq produced to SIFMA in discovery.

Similarly, SIFMA claims—without support—that Nasdaq has a "limited need to market depth-of-book products" because "the products sell themselves." SIFMA Br. 55. But again, SIFMA's argument is contradicted by the evidence. For example, Mr. Albers testified about Nasdaq's extensive sales efforts, such as having its sales team "spend a lot of time on the road" meeting with existing and prospective clients (Albers Tr. 419-20); giving away its products for free to prospective customers to encourage them to try its products—which is obviously not something a company does when its "products sell themselves" (Albers Tr. 424); stimulating demand from end-users to encourage distributors to carry its products (Albers Tr. 425); attending SIFMA conferences to promote its products to SIFMA members (Albers Tr. 427-28); advertising on behalf of distributors to encourage them to carry and promote Nasdaq's products (Albers Tr. 436-38); and extensive advertising (Albers Tr. 419-38). As Mr. Albers explained, these

marketing efforts are “absolutely necessary” because “it’s a very highly competitive market, and we’re trying to further our business in any way we can.” Albers Tr. 438. Not surprisingly, Nasdaq’s marketing efforts are apparently not enough for SIFMA (*see* SIFMA Br. 55), but SIFMA fails to give any basis to determine an amount of marketing it would deem sufficient.

In addition, SIFMA mischaracterizes the evidence of Nasdaq’s innovations and the role of innovation in the competitive marketplace (*see* Nasdaq Post-Hearing Br. 33-34) by arguing that “Mr. Albers could not identify any significant innovations to the fundamental aspects of Nasdaq’s depth-of-book products, apart from improved speed, since 2004.” SIFMA Br. 56. Mr. Albers, however, described a long list of innovations and product enhancements, many of which Nasdaq implemented after 2004. *See* Albers Tr. 482-89.<sup>6</sup> In addition, Mr. Albers explained that Nasdaq has made other product enhancements that are “too many to name.” Albers Tr. 488.

Moreover, during his cross-examination, SIFMA’s counsel asked Mr. Albers if there were other enhancements beyond those he listed in his direct testimony, and Mr. Albers responded by identifying additional enhancements. Albers Tr. 621-22. The record is clear that Nasdaq has made many product enhancements over the years, and as Mr. Albers testified, Nasdaq is driven to innovate by competition because Nasdaq has to “have best in breed products and services to sell them.” Albers Tr. 483.

---

<sup>6</sup> For example, in 2005, Nasdaq doubled the amount of data in its feed with the addition of Brut data (Albers Tr. 486); in 2006, Nasdaq expanded the time period in which users could see data (Albers Tr. 487); in 2006, Nasdaq added iNet data, which again doubled the amount of data in the feed (Albers Tr. 487-88); and after 2006, Nasdaq added functionality to allow customers to select any network provider, which generated network competition and thereby allowed customers to lower the cost of using the data (Albers Tr. 488-89); Nasdaq “created ready-made front-ends,” which made it easier for customers to create a display of Nasdaq’s data (Albers Tr. 489-90); and Nasdaq has “made a lot of other enhancements as well, [such as] making the trading engine and the ecosystem . . . more redundant [and] faster,” and Nasdaq has “added a lot of different content” (Albers Tr. 490).

**C. No Customer Has Been Denied Access To Nasdaq's Depth-Of-Book Data By Any Fee Charged By Nasdaq**

SIFMA argues that the Exchanges have “set prices beyond the reach of . . . many investors,” and that the Exchanges’ “high prices cause retail brokers to limit the depth-of-book data products they make available to their customers.” SIFMA Br. 58. But SIFMA cites not a shred of evidence in support of these assertions.

As Mr. Albers testified at the hearing, most retail customers can obtain Nasdaq's TotalView data for free from an online broker, or they can obtain it directly from Nasdaq's website for \$14 per month. Albers Tr. 384-85. And professional traders can obtain TotalView data for \$70 per month. Albers Tr. 453. Neither fee has been increased since 2003. *Id.* There is no evidence that any person has been denied access to these data by these prices.

Likewise, SIFMA presents no evidence (including from its members, who would have such evidence if SIFMA's positions were true) that any retail broker or other institution has “limite[ed] the depth-of-book data products they make available to their customers” (SIFMA Br. 58) because of the prices charged by Nasdaq or any other exchange. The evidence at the hearing was to the contrary, as Mr. Albers explained that retail brokers only need one source of depth-of-book data for their business model (providing data to customers as an incentive to trade more), and they use the fact that they can purchase data from any of the exchanges in order to generate competition among the exchanges. Albers Tr. 442-43.

In addition, SIFMA has conceded that the large banks and electronic trading firms (that is, the firms who paid the nondisplay price increase to which SIFMA has devoted most of its attention) “can afford to buy multiple depth-of-book products.” SIFMA Br. 58.<sup>7</sup>

---

<sup>7</sup> SIFMA wrongly accuses Nasdaq of “misleadingly suggest[ing] ■■■■ pays ‘just ■■■■ a month’” for TotalView and OpenView data. See SIFMA Br. 14 n.7. But that is not what Nasdaq  
(Cont'd on next page)

And SIFMA points to no evidence that the Nasdaq fee change at issue in this proceeding—which harmonized Level 2 fees with already-existing fees for TotalView and OpenView—has caused any denial or limitation of access to anyone. *See* Nasdaq Post-Hearing Br. 36-37. SIFMA offers no basis to disapprove this fee change.

**D. SIFMA’s Attempt To Rely On Snippets Of Public Statements By Nasdaq Executives Is Unavailing**

Having failed to introduce evidence during the hearing that could support its positions, SIFMA points to a handful of excerpts of public statements made by Nasdaq executives. *See* SIFMA Br. 1. As SIFMA indicates in the opening of its brief, it would rather focus on statements made “outside the courtroom” than on the evidence presented “[i]nside the courtroom.” *Id.* But in doing so, SIFMA fails to acknowledge that SIFMA’s Chief Financial Officer, Mr. Lee Shavel, testified during the hearing about the statements on which SIFMA now relies. Mr. Shavel explained that these statements are entirely consistent with Nasdaq being subject to significant competitive forces in the pricing of its depth-of-book data. For example, Mr. Shavel explained that Nasdaq’s depth-of-book data are crucial only to a small set of large banks and electronic traders who take the data in a direct feed to their servers—that is, the roughly 100 large customers who control most of the order flow on the Nasdaq exchange. Shavel Tr. 1343-45. And Mr. Shavel testified that Nasdaq “[a]bsolutely” does *not* have any

---

*(Cont'd from previous page)*

stated. As Nasdaq stated, [REDACTED] pays just [REDACTED] per month for its nondisplay use of TotalView data (*i.e.*, the supposedly indispensable algorithmic trading use), because it reports just [REDACTED] server that receives a direct feed of the data. *See* Shavel Tr. 1350-51; *accord* Nasdaq Post-Hearing Br. 7 (correctly stating that “[REDACTED] pays [REDACTED]/month for its non-display data usage”). [REDACTED] also pays other fees for other usage of depth-of-book data (*i.e.*, fees other than the nondisplay fee that was initiated in April 2012), which amount to approximately [REDACTED] per month. *See* Shavel Tr. 1361-62. In any event, SIFMA does not contend that [REDACTED] is limited in its access to depth-of-book data by any of these fees.



power “to set prices wherever [it] wants to” because

[t]he market data business and the trading business are very tightly connected, and we can’t raise our fees unreasonably. Our biggest market data customers are also the biggest providers of order flow to our business, and they have the ability to choke off the commodity that’s most valuable to Nasdaq, which is trading volume.

Shavel Tr. 1356; *see also id.* at 1357-59.

SIFMA, of course, ignores Mr. Shavel’s testimony, and instead launches the unsupported accusation that Mr. Shavel “realized on the stand that Nasdaq’s litigation theory was flatly inconsistent with its SEC-filed audited financial statements.” SIFMA Br. 3. Nonsense. Such unseemly attacks on Mr. Shavel or other Nasdaq executives have no place in this proceeding, and it is telling that SIFMA did not even attempt to cite to the record in support of this attack. SIFMA has tried desperately to divert attention from the evidence in the record (and its failure to introduce any evidence to support its positions), and its personal attacks constitute neither evidence nor a basis to sustain its baseless objection to Nasdaq’s rule filing.

**E. SIFMA’s Argument That Nasdaq’s Prices Should Match Its Marginal Costs Is Unfounded And Was Rejected By SIFMA’s Economist**

Predictably, SIFMA once again argues that Your Honor should evaluate the validity of market data fees by reference to the Exchanges’ marginal cost of producing the data. SIFMA Br. 52-53. But SIFMA fails to acknowledge that its cost-based approach to pricing was expressly rejected by the Commission in the ArcaBook Order (which the Commission has instructed Your Honor to apply in this proceeding), and SIFMA ignores as well that the D.C. Circuit in *NetCoalition I* specifically approved of the Commission’s conclusion in the ArcaBook Order that it need not adopt a cost-based approach to pricing. *See* Nasdaq Post-Hearing Br. 37-38. Instead, SIFMA stubbornly argues that the Exchanges’ prices should be evaluated in relation to their marginal costs, and that Nasdaq’s accounting margins provide a litmus test against which to

evaluate the existence of competitive forces. SIFMA Br. 52-53.

Tellingly, however, SIFMA ignores the testimony of its own expert economist, who not only *rejected* SIFMA's position that marginal-cost pricing would be the expected result in the presence of competitive forces, but also conceded that "forcing firms with fixed cost to price their products at marginal cost would make consumers worse off" (Evans Tr. 1146). For example, consistent with his writings, Dr. Evans testified:

- a business that prices at marginal cost "would not be able to earn a normal competitive rate of return" (Evans Tr. 1145);
- a business that prices at marginal cost "wouldn't be able to make enough profit to cover the risks of starting a business or continuing a business" (Evans Tr. 1145);
- "it's widely recognized that virtually all firms charge prices in excess of marginal cost even though they operate in industries that seem quite competitive" (Evans Tr. 1145);
- "firms have to charge more than marginal cost to survive" (Evans Tr. 1146);
- "In the real world virtually all firms charge prices that are greater than the marginal cost" (Evans Tr. 1146); and
- "Firms with market power charge more than marginal cost, but then so does almost everyone else" (Evans Tr. 1146).

Accordingly, Dr. Evans explained that "the mere fact that price is greater than the textbook definition of marginal cost is *not very informative*." Evans Tr. 1146 (emphasis added). And yet, remarkably, SIFMA now asks Your Honor to make a determination about the existence of competitive forces by a comparison of prices and marginal cost—the same inquiry that SIFMA's own economist described as "not very informative."

Likewise, Dr. Evans cautioned against the other test that SIFMA now attempts to foist upon this Tribunal—*i.e.*, looking at Nasdaq's accounting margins to see if they appear to be too high (*see* SIFMA Br. 48). SIFMA offers no meaningful test to assess how low or high Nasdaq's accounting margins should be, or at what point an accounting margin might indicate the

existence of market power. Likewise, SIFMA offers no methodology to address the “devilishly complicated task” of allocating the Exchanges’ joint costs of operating an exchange and attracting order flow to the various products and services they sell from the platform. *See* Ordover Tr. at 732-34 (discussing difficulty in allocating joint or common costs among joint products, such as between freight and passengers in the railroad industry); Ordover Report ¶¶ 55-56. SIFMA’s failure to offer a meaningful approach to these issues is not surprising, because its own economist disclaimed reliance on an analysis of accounting margins. Indeed, Dr. Evans has written that there are “major problems” with attempting to use a company’s margins as a basis for assessing market power. Evans Tr. 1132. As Dr. Evans testified, “[t]here are conceptual problems, and there are empirical problems with determining profit margins. There are reasons why firms can have high profit margins yet still be faced with the competitive constraints . . . . I would not leap to the conclusion that a firm had significant market power simply on the basis that it had high margins.” Evans Tr. 1132-33. As Dr. Ordover explained, the “conceptual problems” here include the fact that Nasdaq’s accounting margins for its data products do not include substantial joint costs (such as rebates paid to attract displayable limit orders that comprise the depth-of-book data) that Nasdaq incurs to operate its platform. *See* Nasdaq Post-Hearing Br. 39-40.

Thus, not surprisingly, Dr. Evans testified that “in this matter, I have not put much weight on the price cost margin.” Evans Tr. 1134. Furthermore, he testified that he “would object to . . . taking a price cost margin, having that as the main piece of evidence and concluding that that is an indicator of a monopoly power.” *Id.* And yet SIFMA now argues that Your Honor should look at Nasdaq’s accounting margins as a test of market power—even though its own economist has cautioned *against* adopting such a test and has declined to develop such a test here. There is

no support whatsoever for SIFMA's proposed test of market power based on Nasdaq's margins.

Finally, SIFMA argues that there is something fundamentally wrong with the Exchanges' having priced their products in relation to the value their customers place on those products. *See* SIFMA Br. 51 (criticizing pricing strategy aimed at "fairly charging for the value that the data recipients get out of the data"). But pricing based on the fair value of the data is simply a result of the market-based pricing that the Commission determined should prevail here. That is, customers will buy a product if they find it valuable at the price offered, which will tend to yield prices that bear a relationship to the value provided to customers. *See, e.g.,* Evans Tr. 1165 ("When customers are making a decision to buy, they consider how valuable the product is for them relative to the cost of the product. . . . So both the value to the customer and the price they're paying for it goes into the decision of whether or not to buy the product."). There is nothing sinister about value-based pricing—rather, it is an ordinary and expected result from the operation of market forces in a content industry.<sup>8</sup>

### III. CONCLUSION

Based on the foregoing and the evidence presented at the hearing, Nasdaq respectfully requests that Your Honor dismiss SIFMA's application challenging Nasdaq's Rule Change.

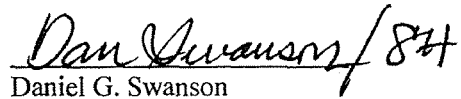
---

<sup>8</sup> *See, e.g.,* Note, *Antitrust and the Information Age: Section 2 Monopolization Analyses in the New Economy*, 114 Harv. L. Rev. 1623, 1629 (2001) ("With respect to the production of information goods, then, cost-based pricing is inappropriate; because the marginal cost per unit approaches zero, price cannot be based on a percentage markup from the marginal cost as traditional pricing methods prescribe. Rather, price determinations must be based on consumer value—what various consumers are willing to pay based on the value they assign to the product. This approach is referred to as 'value-based pricing.'").

Jeffrey S. Davis  
NASDAQ OMX  
805 King Farm Boulevard  
Rockville, MD 20850

John Yetter  
NASDAQ OMX  
805 King Farm Boulevard  
Rockville, MD 20850

Respectfully submitted,

  
Daniel G. Swanson  
Eugene Scalia  
Joshua Lipton  
Amir C. Tavrani  
Thomas M. Johnson, Jr.  
Gibson, Dunn & Crutcher LLP  
1050 Connecticut Avenue, N.W.  
Washington, D.C. 20036  
(202) 955-8500  
jlipton@gibsondunn.com

Stephen D. Susman  
Jacob W. Buchdahl  
Susman Godfrey LLP  
560 Lexington Ave, 15th Floor  
New York, NY 10022  
(212) 336-8330  
ssusman@susmangodfrey.com

Dated: July 31, 2015

CERTIFICATE OF SERVICE

I hereby certify that on July 31, 2015, I caused a copy of the foregoing Reply Post-Hearing Brief Of The NASDAQ Stock Market LLC to be served on the parties listed below via First Class Mail. Service was accomplished on SIFMA and NYSE Arca via First Class Mail because of the large service list.


Brent J. Fields  
Secretary  
U.S. Securities and Exchange Commission  
100 F Street, N.E.  
Washington, DC 20549  
*(via hand delivery)*

W. Hardy Callcott  
Sidley Austin LLP  
555 California Street, Suite 2000  
San Francisco, CA 94104

Michael D. Warden  
HL Rogers  
Eric D. McArthur  
Sidley Austin LLP  
1501 K Street, N.W.  
Washington, DC 20005

Douglas W. Henkin  
Seth T. Taube  
Joseph Perry  
Patrick Marecki  
Baker Botts LLP  
30 Rockefeller Plaza  
New York, NY 10112

Dated: July 31, 2015

  
Joshua Lipton  
Gibson, Dunn & Crutcher LLP  
1050 Connecticut Avenue, N.W.  
Washington, D.C. 20036  
(202) 955-8500  
jlipton@gibsondunn.com