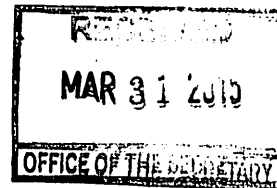


UNITED STATES OF AMERICA
before the
SECURITIES AND EXCHANGE COMMISSION



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 THE NASDAQ STOCK MARKET LLC

REDACTED

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Pursuant to Your Honor's January 13, 2015 order, the Nasdaq Stock Market LLC ("Nasdaq") respectfully submits this brief in advance of the hearing scheduled to begin on April 20, 2015. As set forth below, the Application of the Securities Industry and Financial Markets Association ("SIFMA") challenging Nasdaq's immediately effective rule change—Exchange Act Release No. 34-62907, File No. NASDAQ-2010-110 (Sept. 14, 2010) (the "Rule Change")—as a limitation on access under the Exchange Act should be dismissed.

I. INTRODUCTION

The central issue in this proceeding is whether Nasdaq was "subject to significant competitive forces in setting the terms of its proposal for non-core data, including the level of any fees." 73 Fed. Reg. 74,770, 74,781 (Dec. 9, 2008) (the "ArcaBook Order"). As the Commission and the D.C. Circuit have recognized, there are at least two types of competitive forces that can put pressure on exchanges in setting their prices:

- (1) "the availability of alternatives to an exchange's depth-of-book data significantly affects the terms on which an exchange distributes such data," ArcaBook Order, 73 Fed. Reg. at 74,784, because customers can substitute competing products offered by other exchanges if confronted with a supracompetitive price; and
- (2) in light of the "compelling need to attract order flow from market participants," ArcaBook Order, 73 Fed. Reg. at 74,782, exchanges' depth-of-book prices are constrained because their customers can (and do) use the threat of shifting order flow to put pressure on the exchanges' data prices.

The evidence will show that both types of competitive forces place powerful constraints on Nasdaq's depth-of-book data pricing. As Oliver Albers, the Head of Sales for Nasdaq Global Data Products, will testify, Nasdaq is acutely aware of these competitive forces, which provide an ever-present constraint on Nasdaq's pricing and other competitive decisions. Moreover, the evidence will show that Nasdaq has not raised rates for extended periods of time and has in fact lowered its depth-of-book data prices on multiple occasions in response to competitive forces.

For example, Nasdaq's internal documents reflect that it has adopted caps on its depth-of-book data fees and other price reductions in response to competitors' prices and the threat of customer switching, and as an incentive to encourage large trading customers to shift their order flow to Nasdaq's trading platform. Similarly, the evidence will demonstrate that these competitive forces have prompted the exchanges to constantly improve their market-data products.

Moreover, evidence from Nasdaq's customers—including SIFMA's members—demonstrates that they are well aware of these competitive forces and that they use these competitive forces to put downward pressure on Nasdaq's depth-of-book data pricing. For example,

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] carried out this threat, shifting a substantial volume of order flow to Nasdaq's competitors, and drastically reducing its usage of Nasdaq's depth-of-book data, placing intense competitive pressure on Nasdaq's depth-of-book data pricing. This evidence of "trader behavior" (as well as the other evidence Nasdaq will present) is precisely the sort of evidence that the D.C. Circuit discussed in its *NetCoalition I* opinion, see *NetCoalition v. SEC*, 615 F.3d 525, 543 (D.C. Cir. 2010) ("*NetCoalition P*"), and it overwhelmingly demonstrates the significant competitive forces that constrain the exchanges' data pricing.

SIFMA has no response to this evidence. Indeed, despite bringing this case on behalf of many of the largest traders in the world—with thousands of traders and untold volumes of evidence at its disposal—and despite the D.C. Circuit’s call for “additional evidence of trader behavior,” *NetCoalition I*, 615 F.3d at 543, SIFMA will present *not a shred of evidence from any trader*. No documents; no witness testimony. That is because the evidence from these traders—including SIFMA’s own members—overwhelmingly demonstrates the significant competitive forces that constrain the exchanges’ pricing. As [REDACTED] wrote to Nasdaq, [REDACTED] is well understood by Nasdaq’s customers, which is why SIFMA is unable to present any evidence from any of its members in support of its assertion that the exchanges are unconstrained by competition.

Instead, SIFMA relies on two expert reports (as well as out-of-context quotations from Nasdaq executives in analyst presentations) in an effort to divert attention from the evidence of marketplace behavior that compels a decision in the exchanges’ favor. For example, SIFMA’s purported marketplace expert—Bernard Donefer—argues in his report that it is impossible for traders to shift order flow in response to depth-of-book data prices because traders have best-execution responsibilities. But Mr. Donefer, who last worked in the industry before these depth-of-book data products even existed, cites no evidence of trader behavior to back up his assertion. And he offers no explanation for the actual trader behavior (such as the email from [REDACTED] quoted above) that, according to his theoretical construct, would be impossible.

The evidence will also demonstrate (as discussed in the testimony of Nasdaq’s economic expert, Professor Janusz Ordover, who teaches economics at New York University and formerly served as Deputy Assistant Attorney General for Economics at the Antitrust Division of the Department of Justice) that the robust competition in the marketplace provides benefits to

customers, including through innovation, widespread availability of products, and competitive pricing. This is precisely the sort of healthy marketplace that the Commission envisioned when it determined that competition—not regulation—would be the best determinant of product availability and pricing. SIFMA seeks to displace this framework in favor of the sort of cost-based regulation that the Commission has repeatedly rejected. Although SIFMA’s proposed pricing regulation would benefit SIFMA’s members in their efforts to expand their competing (and far less-transparent) trading platforms, it would harm the marketplace as a whole and is entirely unjustified under the Commission’s standards. Your Honor should reject SIFMA’s calls for cost-based regulation, just as the Commission has repeatedly rejected those calls for years.¹

II. BACKGROUND—THE RULE FILINGS AND SIFMA’S CHALLENGES

Nasdaq is an SRO registered with the Commission as a national securities exchange. The Exchange Act requires SROs to file changes to their rules with the Commission. *See* 15 U.S.C. § 78s(b)(1). Under the Dodd-Frank Wall Street Reform and Consumer Protection Act, rule changes “establishing or changing a due, fee, or other charge imposed by the self-regulatory organization on any person” “shall take effect upon filing with the Commission if designated by the” SRO as immediately effective. *Id.* § 78s(b)(3)(A).

¹ Nasdaq respectfully incorporates and preserves for further review all arguments previously made in its briefing preceding the Commission’s May 16, 2014 order establishing procedures and Your Honor’s October 20, 2014 order on jurisdiction. In particular, Nasdaq maintains that (1) allegedly unreasonable fees do not constitute a prohibition or limitation on access to the services of a self-regulatory organization (“SRO”) under Sections 19(d) and 19(f) of the Exchange Act; (2) neither SIFMA nor its members have adequately demonstrated that they have been aggrieved by Nasdaq’s fees, and they thus lack statutory and Article III standing to challenge those fees; (3) SIFMA’s *pro forma* declarations fall short of establishing that the rule changes in question actually limit members’ access to services; (4) SIFMA’s applications are untimely because they were not made within 30 days of filing of notice of the proposed rules; and (5) the initial burden of production and ultimate burden of proof in this proceeding rest on SIFMA.

If an SRO designates a rule change as immediately effective upon filing, “the Commission summarily may,” in certain circumstances, “temporarily suspend the change,” “[a]t any time within the 60-day period beginning on the date of filing of such a proposed rule change.” *Id.* § 78s(b)(3)(C). If the Commission temporarily suspends a rule change, it must institute proceedings “to determine whether the proposed rule should be approved or disapproved.” *Id.* The Commission actively exercises this suspension power.²

On September 7, 2010, Nasdaq filed the Rule Change, which concerns three Nasdaq depth-of-book products: Level 2, TotalView, and OpenView.³ Prior to implementation of the rule, customers paid distributor and direct access fees for receiving TotalView and OpenView, but did not pay those fees for accessing Level 2. The Rule Change harmonized the distributor and direct access fees for these products by leaving in place the already-existing fees for TotalView and OpenView, and extending those same fees to users of Level 2. The Rule Change did not alter the fees paid by any distributor that was already paying the TotalView or OpenView fees. Thus, for example, each of the nine entities that submitted jurisdictional declarations on behalf of SIFMA—claiming that the Rule Change constituted a limitation on access to Nasdaq’s depth-of-book data—experienced no change in fees as a result of the challenged Rule Change.⁴ Notwithstanding the Commission’s frequent invocation of its suspension power, it did not suspend the Rule Change within the 60-day period provided by Section 19(b)(3)(C).

² See, e.g., 79 Fed. Reg. 43,106 (July 24, 2014) (suspending SRO rule); 78 Fed. Reg. 71,700 (Nov. 29, 2013) (same); 77 Fed. Reg. 56,247 (Sept. 12, 2012) (same); *id.* at 26,595 (May 4, 2012) (same); 76 Fed. Reg. 58,065 (Sept. 19, 2011) (same); *id.* at 6,165 (Feb. 3, 2011) (same).

³ Level 2 provides information on the best price for Nasdaq-listed securities quoted by each market participant, but does not include every price quoted by each participant. Ordo Report at 8 (Attachment 1). TotalView contains all of the information in the Level 2 product, but also includes every bid and offer designated by market participants as displayable. *Id.* Nasdaq’s OpenView product provides depth-of-book information for non-Nasdaq listed stocks. *Id.*

⁴ See *Declaration In Support Of Brief Of Nasdaq Stock Market Regarding Proposed Rule Change To Modify Rule 7019* at 4-5 (Aug. 18, 2014) (Attachment 2, Ex. A).

On May 30, 2013, SIFMA filed the present application (No. 3-15350) challenging a rule filed by NYSE Arca, Inc. (“NYSE Arca”) as an unlawful limitation on access under Exchange Act Sections 19(d) and (f). *See* File No. SR-NYSEArca-2010-97 (Nov. 1, 2010) (the “ArcaBook Fee Rule”). The same day, SIFMA filed another application (No. 3-15351) challenging an additional twenty-two post-Dodd-Frank fee rules, including Nasdaq’s Rule Change, which was later transferred from No. 3-15351 and consolidated into this proceeding. SIFMA subsequently filed numerous additional applications challenging the rule changes of various exchanges and has now challenged at least 73 immediately effective filings. SIFMA has requested that all other applications be held in abeyance pending a decision here.

III. LEGAL FRAMEWORK

In this proceeding, the Commission has directed 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)—as informed by the two part test set out in [the Commission’s] 2008 ArcaBook Approval Order, the D.C. Circuit’s decision in *NetCoalition I*, and appropriate briefing from the parties.” *Order Establishing Procedures And Referring Applications* at 20 (May 16, 2014). We will briefly address these three aspects of the legal framework.

The Requirements of Exchange Act Section 19(f). In deciding “whether the challenged rules should be vacated under the statutory standard set forth in Exchange Act Section 19(f),” Your Honor must assess whether the alleged limitation on access is consistent with the purposes of the Exchange Act, 15 U.S.C. § 78s(f), which requires considering whether the rule “protect[s] investors and the public interest,” *id.* § 78f(b)(5), whether it “impose[s] any burden on competition not necessary or appropriate in furtherance of the purposes” of the Act, *id.* § 78f(b)(8), and “whether the action will promote efficiency, competition, and capital formation,”

id. § 78c(f). In applying these standards, the Exchange Act, Regulation NMS, and precedent from the Commission and courts all require application of a market-based approach.

Both Congress and the Commission have recognized that prices set for products and services in a competitive market are presumptively fair and reasonable and do not impose an unnecessary burden on competition within the meaning of the Exchange Act. Indeed, when it established the present “national market system” in the 1975 amendments to the Exchange Act, Congress afforded the Commission the flexibility to remove unnecessary regulatory barriers to competition and to permit market forces to determine prices where appropriate. “The objective [of the 1975 Exchange Act amendments was] to enhance competition and to allow economic forces, interacting within a fair regulatory field, to arrive at appropriate variations in practices and services.” S. Rep. No. 94-75, 94th Cong., 1st Sess. 8 (1975). Accordingly, Congress expressly charged the Commission with supervising the development of a system that would “evolve through the interplay of competitive forces as unnecessary regulatory restrictions are removed.” H.R. Rep. No. 94-229, at 92 (1975) (Conf. Rep.).

Consistent with this charge, the Commission and the courts have repeatedly expressed their preference for competition over regulatory intervention in establishing prices, products, and services in the securities markets. In Regulation NMS, for example, the Commission indicated that market forces should generally determine the price of non-core market data because national market system regulation “has been remarkably successful in promoting market competition in its broader forms that are most important to investors and listed companies.” Exchange Act Release No. 34-51808 (June 9, 2005).

The Two-Part Test in the ArcaBook Order. Against this settled statutory and regulatory backdrop, the Commission adopted in the ArcaBook Order a market-based approach to

evaluating the validity of market-data fees, and expressly rejected SIFMA's argument that Congress had mandated a cost-based approach. In that Order, the Commission emphasized that, in creating the national market system, "Congress intended to rely on competitive forces to the greatest extent possible." 73 Fed. Reg. at 74,780. "If competitive forces are operative," the Commission reasoned, "the self-interest of the exchanges themselves will work powerfully to constrain unreasonable or unfair behavior." *Id.* at 74,781. The Commission therefore explained that, where possible, "reliance on competitive forces is the most appropriate and effective means to assess whether terms for the distribution of non-core data are equitable, fair and reasonable, and not unreasonably discriminatory." *Id.*

To implement this reliance on competitive forces, the Commission adopted a two-part test in the ArcaBook Order. Step one of the test 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." *Id.* Second, if the exchange "was subject to significant competitive forces in setting the terms of [the] proposal," the Rule Change must be upheld unless the party challenging the rule demonstrates "a substantial countervailing basis to find that the terms nevertheless fail to meet an applicable requirement of the Exchange Act or the rules thereunder." *Id.* As an example of such a countervailing basis, the Commission pointed to a situation in which an exchange seeks to use a fee to forestall competition by penalizing market participants for trading in markets other than the proposing exchange. *See id.* at 74,782.

Alternatively, if the exchange was *not* subject to significant competitive forces, the exchange must provide "a substantial basis, other than competitive forces, in its proposed rule change demonstrating that the terms of the proposal are equitable, fair, reasonable, and not unreasonably discriminatory." *Id.* Applying this market-based approach, the Commission

approved the ArcaBook Fee Rule without considering the costs of producing market data, despite comments urging the Commission to consider those costs. *Id.* at 74,797.

The D.C. Circuit's Decision in NetCoalition I. The D.C. Circuit expressly upheld the Commission's market-based approach in *NetCoalition I*. Rejecting SIFMA's argument that the Exchange Act requires the Commission to treat exchanges "as public utilities," the court emphasized that Congress intended the national market system to evolve through competitive forces, not unnecessary regulations, and held that the market-based approach is consistent with the Commission's statutorily-granted flexibility in evaluating data fees. 615 F.3d at 534-35.

In assessing the Commission's application of the two-part test in the ArcaBook Order, the court addressed two types of competitive forces that may constrain exchanges' competitive behavior. First, the court recognized that the indisputably "fierce" competition for order flow may restrict market data fees. *Id.* at 539-42. In addition, the court emphasized that exchanges' behavior may be constrained by the existence of alternative products. *Id.* at 542-44.

While the court expressly approved the Commission's two-part test and acknowledged that these competitive forces may constrain an exchange's pricing behavior, the court held that there was insufficient record evidence to support the Commission's determination that the exchange was subject to significant competitive forces that constrained its ability to set market-data fees. *Id.* at 544. As discussed below, the evidentiary shortcomings that the D.C. Circuit identified in *NetCoalition I* are not present here.

IV. ARGUMENT

Nasdaq's Rule Change is consistent with the Exchange Act—and therefore does not constitute an unlawful limitation on access—under the two-part, market-based test set out in the ArcaBook Order. First, in setting the terms of the Rule Change, Nasdaq was subject to

significant competitive forces. The existence of alternatives to Nasdaq's depth-of-book products—including alternatives to the Level 2 product at issue here—and customers' willingness to switch to those substitute products constrain the prices Nasdaq can charge for market data. Accordingly, as of late 2010, Level 2 had not seen a price increase in a decade. The robust competition for depth-of-book data is reflected in the constant improvements to product quality, service, and price that exchanges implement to distinguish their products from competitors' offerings. Nasdaq's market-data pricing is further checked by its compelling need to attract order flow and the threat that customers dissatisfied with Nasdaq's market-data prices would divert their order flow to competing exchanges.

Because Nasdaq faced significant competitive constraints in setting the terms of the Rule Change, SIFMA can only prevail here by demonstrating a "substantial countervailing basis" for overturning the rule. No such basis exists, much less a substantial one. Indeed, SIFMA cannot conceivably meet its burden of proof on this issue because it has failed to produce a single document, or designate a single witness, from the purportedly "aggrieved" members that purchase Nasdaq's products. Moreover, even assuming that Nasdaq were not subject to significant competitive forces in adopting the Rule Change, the rule would nevertheless be consistent with the Exchange Act because it restrains trading prices, promotes investment and innovation, encourages efficiency of the trading platform, and benefits consumers.

There is no legal or economic support for SIFMA's contention that, despite the evidence of robust competition in the market for non-core data products, the price of Nasdaq's depth-of-book products must approach the marginal cost of providing the data. *NetCoalition I* does not require reliance on marginal-cost data where alternative indicators demonstrate the existence of a robust market. In fact, marginal-cost analysis is misplaced with respect to industries that

distribute content—such as market data—because those industries are characterized by high fixed costs and low marginal costs. The type of cost-based ratemaking that SIFMA nevertheless asks Your Honor to undertake has been consistently rejected by courts and agencies as resource-intensive, arbitrary, and counterproductive, and decades of antitrust precedent likewise counsel against reliance on marginal-cost data.

A. Nasdaq's Fees Are Consistent With The Exchange Act Because The Market For Proprietary Data Products Is Subject To Significant Competitive Forces And There Is No Countervailing Basis For Invalidating The Rule Change.

1. Nasdaq Was Subject To Significant Competitive Constraints In Setting The Terms Of Its Rule Change.

Under the first step of the ArcaBook Order test, Your Honor must determine “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.” ArcaBook Order, 73 Fed. Reg. at 74,781. Nasdaq was subject to two substantial competitive constraints when it set the terms of its Rule Change (as well as its other depth-of-book data pricing decisions): competition from other exchanges’ market-data products and competition for order flow with other trading platforms.

a. Nasdaq's Prices For Depth-Of-Book Products Are Constrained By Competition From Alternative Depth-Of-Book Products.

Nasdaq’s discretion to set a price for the products at issue in its Rule Change was significantly constrained by competition from substitute products in the depth-of-book market. As the Commission made clear in the ArcaBook Order, “the availability of alternatives to an exchange’s depth-of-book order data significantly affects the terms on which an exchange distributes such data,” ArcaBook Order, 73 Fed. Reg. at 74,784, because customers can and do substitute competing products offered by other exchanges when confronted with objectionable prices. Here, the availability of alternatives to Nasdaq’s depth-of-book products, including the

Level 2 product at issue here, constrains Nasdaq's prices and makes clear that Nasdaq was subject to significant competitive forces in setting the terms of the Rule Change.

As Oliver Albers, the Head of Sales for Nasdaq Global Data Products, will testify, the competitive pressure from product substitution is an ever-present force that constrains Nasdaq's pricing and other competitive decisions. Customers (and prospective customers) routinely make clear to Nasdaq that they can and will switch to competing data products—such as NYSE ArcaBook, NYSE OpenBook, and a range of data offerings from BATS—if Nasdaq's prices are out of step with the value Nasdaq's products provide.

The reality of this competitive constraint is reflected in Nasdaq's pricing actions, including periods of stable pricing as well as price reductions taken in response to competitive pressures.⁵ Likewise, this competitive pressure is reflected in communications from customers, who have used the possibility of switching to other data products to put downward pressure on Nasdaq's depth-of-book data prices. For example, [REDACTED]

⁵ For example, in 2010, Nasdaq responded to competitive pricing pressure by adopting a monthly cap on the fees paid by certain distributors of TotalView data. As Nasdaq's internal request for Board approval described, this fee cap was a response to competitive pricing pressures. *See* Tr. Ex. 539, at NASDAQ000318 (Ex. B) [REDACTED]

Further, Nasdaq's expert economist, Dr. Janusz Ordover, has demonstrated through empirical data that the threat of customers switching to competitive products (or simply dropping Nasdaq's depth-of-book data products altogether) is indeed very real and provides a significant competitive constraint on Nasdaq's pricing and other competitive behavior. *See* Ordover Report at 11-17. For example, Dr. Ordover shows that customers can and do switch to substitutes for Nasdaq's products (or decline to purchase depth-of-book data altogether) in response to changes in the prices and other features of Nasdaq's products, and that they would do so to avoid paying a supracompetitive price. Indeed, Nasdaq added as well as lost a substantial number of depth-of-book customers in every year from 2008 to 2014. *Id.* at 13. The annual "churn rate" of Nasdaq's customers—that is, the percentage of total customers that began or stopped subscribing to Nasdaq's depth-of-book products—ranged from [REDACTED] during this period. *Id.* at 13-14. Because the interests of actual and potential buyers are typically stable, these substantial churn rates indicate that customers have alternatives to Nasdaq's data products and actively alternate between the available offerings. *Id.* Moreover, through an examination of Nasdaq's and NYSE Arca's customer data, Dr. Ordover shows that customers can and do switch between Nasdaq's and NYSE Arca's depth-of-book data offerings. *Id.* at 15.

In addition to completely adding or dropping Nasdaq as a source of depth-of-book data, customers can exert competitive pressure by expanding or contracting the number of subscribers that receive the data. A Nasdaq customer can distribute depth-of-book products to multiple subscribers either "internally" (e.g., to traders employed by that customer) or "externally" (e.g., to its clients). Ordover Report at 11 n.25. Because the customer typically pays a usage fee for each subscriber, *id.*, adjusting the number of subscribers has a direct impact on the amount of fees paid to Nasdaq. As relevant here, various customers, including [REDACTED]

██████████, have dramatically increased and decreased their numbers of Nasdaq depth-of-book subscribers over the years. *Id.* at 14. ██████████ for example, increased its subscriber count from about ██████████ in 2006 to about ██████████ in 2008, then reduced its number of subscribers to fewer than ██████████ in 2013. *Id.* at 14-15. This behavior provides additional evidence of customer churn and makes clear that Nasdaq's customers can drop Nasdaq's depth-of-book products (or reduce their number of users) if Nasdaq charges a supracompetitive price. *Id.* at 15.

In light of these pricing constraints, the Department of Justice—the primary enforcer of federal antitrust law—has concluded that Nasdaq faces multiple competitors in the market for proprietary market data.⁶ That conclusion is reinforced by the indicia of robust competition that characterize the market. Nasdaq and the other exchanges are relentlessly driving innovation and improving product quality, service, and price, which powerfully illustrates their vigorous competition for the sale of depth-of-book data. Ordover Report at 8-11. For example, Nasdaq has substantially enhanced its depth-of-book products (including Level 2) over the last few years by improving quality and increasing ease of usage, often without increasing fees. *Id.* at 8.⁷

On the other side of the balance, SIFMA offers no evidence at all from any of its members—even though SIFMA's members represent thousands of traders—to contradict this evidence of robust competition. None of SIFMA's members has stepped forward to testify that they lack the ability to exert competitive pressure on the exchanges by switching from one data product to another. And SIFMA has produced no documents saying anything of the sort.

⁶ 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. D) (“NASDAQ and NYSE are the largest two competitors providing certain real-time proprietary equity data products.”).

⁷ In fact, some of Nasdaq's customers—including SIFMA member Bloomberg—resell Nasdaq's depth-of-book data for a profit. Ordover Report at 26. Their ability to resell the very same depth-of-book products at prices *higher* than those charged by Nasdaq makes clear that Nasdaq is not charging unreasonably high prices.

Instead, SIFMA presents reports from two experts—a purported industry expert (Mr. Donefer) and an economist (Dr. Evans)—who neither rely on any evidence identified as being from any SIFMA member nor address the evidence of competitive forces offered by the exchanges. Rather than offering expert opinions based on evidence, Mr. Donefer and Dr. Evans offer hypothetical constructions of market behavior that are flatly contradicted by the evidence. For example, Mr. Donefer posits that depth-of-book data are “essential to many market participants” and that traders are compelled to buy full depth-of-book data from all exchanges because traders supposedly require complete visibility into the full depth-of-book of every exchange. *See Donefer Report at 2.*

At the hearing, Nasdaq will provide a full rebuttal to these expert reports, explaining where they go wrong in their hypothetical constructs. For example, neither of SIFMA’s experts discloses the identity or number of market participants for which depth-of-book data are supposedly essential. Moreover, the assertion of SIFMA’s experts that depth-of-book data are essential is contradicted by the evidence showing that many traders do *not* purchase any Nasdaq depth-of-book data. *Ordover Report at 16.* And many traders that do buy Nasdaq depth-of-book data do not buy all available depth-of-book data, which demonstrates that many market participants find a subset of the available information adequate. *Id.* Similarly, of those traders that do purchase Nasdaq depth-of-book data, a substantial percentage purchase Nasdaq’s Level 2 product, which provides only a limited subset of the depth-of-book data made available by Nasdaq. *Id.* These results would be impossible if the conclusions of SIFMA’s experts were correct, because no trader would either (a) do without Nasdaq depth-of-book data, or (b) purchase a data product that offers less-than-complete visibility into Nasdaq’s depth of book. In addition, the conclusions of SIFMA’s experts are thoroughly contradicted by the switching

behavior described in the Ordover report, which shows that approximately [REDACTED] of purchasers of Nasdaq's depth-of-book data (including those that purchase Level 2 data) do not purchase depth-of-book data from NYSE, *see id.*, as well as the data showing customer switching between Nasdaq and NYSE products, *see id.* at 15. SIFMA's experts cannot explain this evidence, which directly contradicts their theory that the exchanges do not compete with each other because all traders require access to all depth-of-book data.

At the very most, the theories posited by SIFMA's experts could support a conclusion that *some* traders pursue strategies requiring Nasdaq's depth-of-book data. But this does not mean that the exchanges are not subject to significant competitive forces—indeed, the same could be said for any market in which sellers compete by offering differentiated goods. As Dr. Ordover explains, it is common for some customers to prefer a particular seller's products, even in intensely competitive markets. Ordover Report at 17. For example, many soda drinkers prefer Coke over Pepsi and would not view them as interchangeable, but that does not indicate that Coke is a “monopolist” in its own product, or that Coke and Pepsi are not subject to significant competitive forces. *Id.* Likewise in this market, even assuming that some customers are so committed to purchasing Nasdaq's data that they would not switch to any competitor's products, the presence of customers that *would* switch in response to a price change creates a significant competitive constraint. *Id.* Moreover, the customers that Mr. Donefer identifies as unlikely to drop Nasdaq's depth-of-book data are high-frequency traders (*see* Donefer Report at 22)—and, as discussed below, such substantial customers are capable of using their significant order flow to constrain the exchanges' pricing.

Ultimately, regardless of the trading strategies employed by Nasdaq's customers, if the costs of executing those strategies using Nasdaq depth-of-book products get out of line with the

costs of executing those strategies with competing products, traders can respond by shifting their trading strategies. Ordover Report at 17. The availability of alternatives to Nasdaq's depth-of-book products allows for this consumer response and substantially constrains Nasdaq's prices.

This conclusion is not at odds with the statements of Nasdaq's chief financial officer, Lee Shavel, suggesting that Nasdaq's market data "is not interchangeable with other exchanges' market data," *NASDAQ OMX Investor Program Transcript* at 4 (Dec. 3, 2013) (Ex. E), and thus affords Nasdaq "relatively strong pricing power," *Barclays Global Financial Services Conference Transcript* at 2 (Sept. 10, 2013) (Ex. F). Those statements were made in the context of highlighting to investors the superior features of Nasdaq's market-data products and the competitive advantage those features afford to Nasdaq. The fact that one competitor offers a differentiated product featuring innovations that are attractive to customers is part of the competitive process—it is not evidence of an absence of competition. And the temporary ability to charge a premium price for an innovative and superior product (at least until competitors catch up) is not evidence of an absence of competition—it is a *result* of competition and a sign of a healthy market. Just as the Commission envisioned in setting up a competitive process, these innovations have benefited customers, and they should not be misconstrued to suggest that Nasdaq does not face significant competition.

b. Nasdaq's Prices For Depth-Of-Book Products Are Constrained By Competition For Order Flow.

In addition to competition for market-data customers, competition for order flow (that is, trading volume) among trading platforms significantly constrains Nasdaq's depth-of-book prices, including its prices for Level 2. The Commission recognized in the ArcaBook Order that the "compelling need to attract order flow" is a source of substantial competition among exchanges. ArcaBook Order, 73 Fed. Reg. at 74,782. As the Commission explained:

Attracting order flow is the core competitive concern of any equity exchange—it is the “without which, not” of an exchange’s competitive success. If an exchange cannot attract orders, it will not be able to execute transactions. If it cannot execute transactions, it will not generate transaction revenue. If an exchange cannot attract orders or execute transactions, it will not have market data to distribute, for a fee or otherwise, and will not earn market data revenue.

Id. Thus, the value of Nasdaq’s market data is directly attributable to its ability to attract order flow. And because “buyers and sellers of securities, and the broker-dealers that act as their order-routing agents, have a wide range of choices of where to route orders for execution,” *id.*, “[n]o one disputes that competition for order flow is ‘fierce,’” *NetCoalition I*, 615 F.3d at 539.⁸

The evidence at the hearing—including the testimony from Mr. Albers, Nasdaq’s internal documents, and communications from customers (including SIFMA members)—will show that Nasdaq’s customers, many of whom both purchase depth-of-book data products from Nasdaq and provide a substantial amount of order flow to the Nasdaq platform, are sophisticated and recognize the value that they provide to Nasdaq through their trading volume. *See* Ordover Report at 18. Accordingly, these customers can and do use the threat of shifting order flow away from Nasdaq (or the promise of shifting additional order flow to Nasdaq) to put pressure on Nasdaq’s market-data prices. *Id.* As a Nasdaq internal presentation explains, [REDACTED]

⁸ Indeed, no single platform or platform operator accounts for even 25% of trading in U.S. equities. Ordover Report at 5. Nasdaq’s share of the trading in U.S. equities is only 17%, which is smaller than that of both NYSE and BATS, and underscores the extent of order-flow competition. *Id.* In addition, the rapid rise of BATS Global Markets and Direct Edge (both of which began as alternative trading platforms and entered the market as exchanges less than seven years ago) and the substantial increase in over-the-counter trading indicate that the business of trading equities is not characterized by substantial barriers to entry or expansion. *Id.* at 5-6. As a result of these competitive forces, Nasdaq’s market share was nearly cut in half over the past six years, from 32% to 17%. *Id.* at 5. And because trading volume for individual stocks is not concentrated on any particular exchange, individual exchanges do not maintain an exclusive hold on trading for a particular security. *See* Hendershott & Nevo Report at 7.

[REDACTED] Tr. Ex. 527, at NASDAQ000268 (Ex. G). Similarly, another Nasdaq internal presentation identifies [REDACTED]

[REDACTED] Tr. Ex. 526, at NASDAQ000231 (Ex. H).

Likewise, Nasdaq's communications with its customers demonstrate that those customers recognize that order-flow competition places pressure on depth-of-book data prices, and that the customers can use this competitive pressure to their advantage. As one example, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] carried out its threat, diverting substantial order flow away from Nasdaq and significantly reducing its use of Nasdaq's data to put pressure on Nasdaq's depth-of-book pricing. Tr. Ex. 506, at NASDAQ000018 (Ex. J).

Similarly, other customers have also leveraged their trading volume with Nasdaq to pressure Nasdaq to reduce depth-of-book data fees. For instance, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Both of these price reductions were filed with the Commission and were available to any similarly situated firms.

These examples of customers shifting order flow to and from Nasdaq—together with the econometric analysis of Professors Hendershott and Nevo—provide the evidence that the court of appeals deemed missing in *NetCoalition I*: evidence “that more modestly priced market data drives increased order flow,” 615 F.3d at 539, and that, concomitantly, comparatively higher market-data prices can lead to a reduction in order flow, *see* Hendershott & Nevo Report at 31 (establishing that “NYSE Arca lost share in trading volume following the January 1, 2009 ArcaBook price increase”). Nor is there any tension between the existence of the critical competitive forces linking market data and order flow, on the one hand, and the fact that depth-of-book data is unnecessary to many investors. *See NetCoalition I*, 615 F.3d at 540 (positing existence of potential tension between these two positions). Although many market participants successfully pursue trading strategies without purchasing depth-of-book data, a relatively small number of highly influential, high-volume traders do rely on that data, and those same traders provide significant order flow to the exchanges. As demonstrated above, depth-of-book data is

sufficiently important to these traders that they will divert their substantial order flow in response to a price increase they find objectionable. This [REDACTED] [REDACTED]—in the words of one of those traders—therefore represents a significant competitive force that constrains Nasdaq’s prices for depth-of-book data.

In response to this powerful evidence of competitive pressure on Nasdaq’s depth-of-book data pricing—which has actually prompted Nasdaq to reduce its data prices—SIFMA once again points to no evidence at all. Although SIFMA previously put forward individual business persons from its members in support of its standing, those individuals will not testify at the hearing, and SIFMA will not present any documents from their files. As discussed above—as in the examples of [REDACTED] and [REDACTED]—the evidence from SIFMA’s own members corroborates the influence of order-flow competition on depth-of-book data pricing.

Instead of evidence, SIFMA offers testimony from purported experts who simply assert that it is impossible that order-flow competition could influence depth-of-book data pricing. Specifically, Mr. Donefer asserts in his report—without citing any evidence—that “it is not an option [for 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 . . . given their best execution obligations and Reg NMS.” Donefer Report at 26. But Mr. Donefer’s assertion is not only unsupported by any evidence, it is flatly contradicted by the statements and actions of SIFMA members that have threatened to move and in fact moved order flow in order to put pressure on Nasdaq’s depth-of-book data pricing. Mr. Donefer does not even attempt to address that evidence (even though it was available to him when he prepared his report). Likewise, SIFMA’s other expert, Dr. Evans, attempts to dismiss the evidence as unreliable “anecdotes.” Evans Report at 25. But there is nothing unreliable about evidence showing the *actual* reaction

of market participants to price changes; that is the very “trader behavior” evidence requested by the D.C. Circuit in *NetCoalition I*. See 615 F.3d at 543. Merely labeling that evidence as “anecdotal” does not diminish its relevance, and it does not address the evidence from Nasdaq’s ordinary-course documents (and the testimony that will be presented at the hearing) showing that trader behavior of this nature actually constrains Nasdaq’s data pricing. See, e.g., *United States v. Dentsply, Int’l, Inc.*, 399 F.3d 181, 191 (3d Cir. 2005) (crediting “anecdotal evidence” in support of conclusion regarding market power). This specific evidence of trader behavior is particularly strong here, where SIFMA is asserting that the behavior in question does not exist because it is “not an option” for traders. The evidence that such behavior actually occurred fatally undermines SIFMA’s positions and demonstrates that the competitive forces that constrain the exchanges’ pricing are indeed real and powerful.

2. There Is No Countervailing Basis For Invalidating Nasdaq’s Rule Change.

Because Nasdaq was subject to significant competitive forces in setting the terms of its Rule Change, Your Honor must dismiss SIFMA’s application unless SIFMA is able to meet its burden of demonstrating “a substantial countervailing basis to find that the terms nevertheless fail to meet an applicable requirement of the Exchange Act or the rules thereunder.” ArcaBook Order, 73 Fed. Reg. at 74,781. SIFMA has not made (and cannot make) such a showing. Indeed, SIFMA abdicated that burden entirely by failing to produce a single piece of documentary evidence from its members, and by neglecting to designate any of those members as a witness, in order to substantiate the existence of a “substantial countervailing basis” for invalidating Nasdaq’s competitively constrained prices.

In the ArcaBook Order, the Commission provided an example of a substantial countervailing basis for deeming a proposal inconsistent with the Exchange Act: “an exchange

proposal that seeks to penalize market participants for trading in markets other than the proposing exchange.” 73 Fed. Reg. at 74,782. “In the absence of such a substantial countervailing basis for finding that a proposal failed to meet the applicable statutory standards,” the Commission “would approve the exchange proposal as consistent with the Exchange Act and rules applicable to the exchange.” *Id.* In the context of the Commission’s two-part test, this second step makes sense. That is, in the presence of significant competitive forces, the Commission will generally allow an exchange’s pricing decisions to stand; but if the exchange’s pricing actions threaten to harm competition (such as by penalizing traders for using a competing exchange), the Commission will step in to ensure that competitive forces are not threatened.

Here, Nasdaq’s Rule Change does not seek to penalize market participants for trading in other markets or threaten the competitive functioning of the marketplace in any way. *See* Ordover Report at 22-24. Accordingly, the Rule Change should be upheld under the two-step ArcaBook Order test.

3. There Is A Substantial Basis Other Than Competitive Forces For Upholding Nasdaq’s Rule Change.

Moreover, even assuming that Nasdaq was not subject to significant competitive forces in setting the terms of the Rule Change, 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 Order, 73 Fed. Reg. at 74,781. In particular, the Rule Change benefits market participants by keeping trading prices low, encouraging investment and innovation in data products, enhancing the efficiency of the trading platform, and promoting consumer welfare. Ordover Report at 23-24. The reduction in price that SIFMA appears to be demanding would inevitably reduce the revenues earned by Nasdaq and other exchanges that sell depth-of-book data, likely forcing them

to increase net trading fees and/or reduce investment in platform businesses, including the production and dissemination of new and innovative market-data products. *Id.* at 23. Both outcomes would impede the efficiency of financial markets and harm market participants trading on the exchanges. *Id.* at 23-24. For example, increases in trading fees and reductions in investment by registered exchanges would drive order flow away from the exchanges and toward dark pools and other over-the-counter trading platforms in which the identities of traders and the prices at which they trade are unknown. *Id.* at 4-5. While this reduction in transparency might benefit SIFMA’s members—which operate the dark pools that are directly competing with the exchanges for order flow—it is at odds with the Exchange Act, as one of SIFMA’s own experts recognizes. *See* Evans Report at 6-7 (“[T]he Exchange Act seeks to ensure that data are widely disseminated to increase market efficiency and transparency.”). Your Honor should be particularly skeptical of a legal challenge that would give SIFMA’s members a competitive advantage over the exchanges at the expense of other traders and the information flow that the Exchange Act sought to foster.⁹

B. SIFMA’s Reliance On Marginal-Cost Data Is Misplaced.

SIFMA has maintained throughout this proceeding that marginal costs are of “critical importance . . . in determining whether the Exchanges’ fees are constrained by competitive forces.” *SIFMA Request For Issuance Of Subpoenas* at 6 (Dec. 5, 2014); *see also* Evans Report at 29-30. Under *NetCoalition I*, SIFMA claims, “the costs incurred in collecting and distributing depth-of-book data itself are relevant in assessing the reasonableness of the fees an exchange

⁹ *See, e.g., Sterling Merch., Inc. v. Nestle, S.A.*, 656 F.3d 112, 121 (1st Cir. 2011) (“[Because] competitors have incentives to bring antitrust suits for purposes which are anti-competitive, . . . there is reason for courts to be ‘properly skeptical of many rivals’ suits”) (citing 2 Areeda & Hovenkamp, *Antitrust Law*, ¶ 348a); *Computer Automation Sys., Inc., v. Intelutions*, 998 F. Supp. 2d 3, 7-8 (D.P.R. 2014) (same); *J. Allen Ramey, M.D., Inc. v. Pac. Found. for Med. Care*, 999 F. Supp. 1355, 1361 (S.D. Cal. 1998) (same).

charges for the data because ‘in a competitive market, the price of a product is supposed to approach its marginal cost, *i.e.*, the seller’s cost of producing one additional unit.’” *SIFMA Comment Letter and Petition For Disapproval* at 5-6, File No. SR-NYSEArca-2010-97 (Dec. 8, 2010) (citing *NetCoalition I*, 615 F.3d at 537). Contrary to SIFMA’s position, however, marginal-cost data are unnecessary where other signs of a healthy market are present. Those signs—including robust competition—are present here. In addition, a settled line of judicial and agency authority rejects cost-based ratemaking and reliance on marginal-cost data.

1. *NetCoalition I* Does Not Require Reliance On Marginal-Cost Data Where Alternative Indicators Show A Robust Market.

SIFMA argues that, under *NetCoalition I*, the validity of a market-data fee turns on the cost of producing that data. The *NetCoalition I* court, however, expressly rejected SIFMA’s argument that “Congress intended ‘fair and reasonable’ to be determined using a cost-based approach” and instead agreed with the Commission that “its market-based approach is fully consistent with the Exchange Act.” 615 F.3d at 534. As the D.C. Circuit emphasized, the Commission itself “intended in Regulation NMS that ‘market forces, rather than regulatory requirements’ play a role in determining the market data . . . to be made available to investors and at what cost.” *Id.* at 537. The court thus expressly rejected the notion that prices for depth-of-book data should be subject to cost-based regulation.

SIFMA nevertheless relies on dicta from *NetCoalition I* in which the D.C. Circuit stated that it did “not mean to say that a cost analysis is irrelevant” and that “the costs of collecting and distributing market data *can* indicate whether an exchange is taking ‘excessive profits.’” *Id.* (emphasis added). As Your Honor recognized in a previous prehearing conference, however, language stating that a factor *can* be considered in no way indicates that the factor *must* be

considered. *See* Tr. at 75 (Dec. 30, 2014) (Ex. M). The dicta in *NetCoalition I* simply means—at most—that cost may be relevant in some situations but not others.¹⁰

Here, as explained above, the market for depth-of-book products is fiercely competitive due to the availability of substitute products, which heavily constrains Nasdaq's depth-of-book prices. *See supra* Part IV.A.1.a. In addition, Nasdaq's market-data pricing is further constrained by the equally vigorous competition for order flow. *See supra* Part IV.A.1.b. Thus, even if cost-based analysis could sometimes be appropriate under *NetCoalition I*, the market structure and level of competition for market data and order flow make such analysis unwarranted here.

In any event, analysis of marginal costs has no probative value in the market-data setting because this market is characterized by high fixed costs and low marginal costs. Marginal-cost pricing is not sustainable in such a market because firms must earn at least a normal risk-adjusted return on their investments in order to remain viable. Ordo Report at 25. If firms with high fixed costs and low marginal costs were compelled to price at or close to marginal costs, those firms would not be able to recover their fixed costs in order to earn a normal return, and they would be forced to exit the industry. *Id.*

For this reason, even where competition is robust, prices above marginal cost are common in industries with substantial fixed costs and low marginal costs. *Id.* For example, while the price of a hardcover book greatly exceeds the marginal cost of printing and distributing that book to one additional customer, it would be absurd to conclude that pricing above marginal cost indicates that a publisher of the book faces no competitive forces and can charge a supracompetitive price. *Id.* at 26. The intense competition among publishers and book titles

¹⁰ *See Brief of Respondent SEC* at 62, *NetCoalition I*, 615 F.3d 525 (“Sometimes determining and analyzing costs may be an appropriate step in ensuring that fees are fair and reasonable, but the Commission was hardly arbitrary and capricious in deciding that this case was not one of those times.”).

does not drive book prices to marginal costs because the publisher must recover its fixed costs, including the cost of producing the content. *Id.* Similarly, software manufacturers sell products at prices well above marginal cost in order to recapture the fixed costs of producing the software. Indeed, SIFMA members such as Bloomberg do not invariably price their own content-based products at marginal cost. *Id.* at 26.

Like other content businesses, exchanges cannot earn a normal risk-adjusted return on their investments by pricing market data at marginal cost. *Id.* at 25-26. The *NetCoalition I* court plainly did not intend to force exchanges out of the industry by mandating marginal-cost pricing. Thus, even assuming that evidence of marginal cost “can” be relevant in some circumstances, *NetCoalition I*, 615 F.3d at 537, “this case [is] not one of those times,” *Brief of Respondent SEC* at 62, *NetCoalition I*, 615 F.3d 525.

Moreover, the problem of determining a reasonable return on investment and fixed costs is particularly pronounced in this case, in which the products in question (depth-of-book data) are just some of a number of products and services that are generated from a single platform with shared fixed costs. *See* Ordover Report at 26-27. Because there is no market data without limit orders, the substantial fixed costs incurred by Nasdaq to maintain an attractive trading platform should be considered as part of any theoretical exercise of determining whether Nasdaq’s depth-of-book data prices generate a reasonable rate of return for Nasdaq. But any such allocation raises the fundamental problem—well-recognized by economists—that there is no economically sensible way to allocate joint fixed costs across joint products in order to determine whether a single product generates a reasonable return on investment (as opposed to looking at the revenues and costs of the platform and its joint products as a whole). Nasdaq, like many other businesses with joint products, makes an internal allocation of costs, but that allocation is driven

by business accounting considerations and is not a tool to measure whether, as an economic matter, one product or another earns a supracompetitive rate of return. As Dr. Ordover discusses in his report, economists have long recognized that any attempt to unbundle joint products and their costs to determine whether one of the joint products generates supracompetitive rates of return would be arbitrary and meaningless. *See id.* at 27-28.¹¹

2. SIFMA Is Urging The SEC To Engage In The Type Of Cost-Based Ratemaking Consistently Rejected By Courts And Agencies.

The irrelevance of marginal-cost data to this proceeding is underscored by a long line of judicial and agency decisions rejecting cost-based ratemaking as counterproductive and inefficient. Indeed, SIFMA's position would transform the Section 19(d) procedure into the type of agency ratemaking that the Commission, other agencies, and the courts have all sought to limit in recent decades.¹²

¹¹ In disputing this point, Dr. Evans is simply wrong to suggest that joint costs cannot be allocated to depth-of-book data because those data are merely "byproduct[s] of trading" and thus will be produced regardless of "incentives." Evans Report at 7, 30. In fact, in order to incentivize the limit orders that actually create the underlying data, Nasdaq pays more than \$1 billion a year in rebates to the market participants placing those orders. Without those rebates, Nasdaq would receive few (if any) limit orders and would thus have no market data to sell. Furthermore, Nasdaq incurs costs to aggregate its depth-of-book information and put it in a form that is useful to market participants. As these examples demonstrate, depth-of-book data are not byproducts produced free of cost—they are instead inextricably intertwined and produced jointly with trading services, which means that there is no logical way to disentangle the joint costs.

¹² *See, e.g.*, Report of the Advisory Committee on Market Information: A Blueprint for Responsible Change, at § VII.D.3 (SEC Sept. 14, 2001) ("The 'public utility' cost-based ratemaking approach . . . is resource-intensive, involves arbitrary judgments on appropriate costs, and creates distortive economic incentives."); *Elizabethtown Gas Co. v. FERC*, 10 F.3d 866, 870 (D.C. Cir. 1993) (upholding FERC's decision to "rely upon market-based prices in lieu of cost-of-service regulation"); *see also* Stephen Breyer, *Analyzing Regulatory Failure: Mismatches, Less Restrictive Alternatives, and Reform*, 92 Harv. L. Rev. 547, 565 (1979) ("Given the inability of regulation to reproduce the competitive market's price signals, only severe market failure would make the regulatory game worth the candle."); H. Hovenkamp, *Book Review: The Takings Clause And Improvident Regulatory Bargains*, 108 Yale L.J. 801, 827 (1999) (noting that "the many defects of cost-of-service ratemaking have been a standard if not completely uncontroversial part of the literature for well over three decades").

Although SIFMA contends that it is not advocating “strict, cost-of-service ratemaking,” *SIFMA Comment Letter and Petition For Disapproval* at 6, File No. SR-NYSEArca-2010-97 (Dec. 8, 2010), SIFMA’s position appears in fact to be that, even in the presence of robust competition, prices need to be constrained by some form of cost-based regulatory oversight, Ordover Report at 29. It is widely accepted that this type of cost-based regulation can create significant inefficiencies and distortions, which is a major reason that this regulation has been widely abandoned in various industries, including telecommunications. *Id.*¹³ And despite SIFMA’s insistence that marginal cost should be considered in this proceeding, SIFMA provides no guidance on how this cost data should be used to evaluate the degree of competition in the market for depth-of-book products and the ultimate validity of the rules at issue. *Id.* at 24, 29.

3. Decades Of Antitrust Precedent Counsel Against Reliance On Marginal-Cost Data.

Finally, courts and regulators applying the antitrust laws—in which the presence or absence of competition is a central issue—have developed a framework for addressing disputes over the existence of competitive forces. In the antitrust context, it is well recognized that “direct evidence” of market power, such as a comparison of prices to costs, is “only rarely available” because it is often impossible to quantify what a “competitive” or “supracompetitive” price looks like (for many of the reasons discussed above). *Harrison Aire, Inc. v. Aerostar Int’l, Inc.*, 423 F.3d 374, 381 (3d Cir. 2005). Accordingly, courts have recognized that the far more common approach to assessing whether competitive forces are at work is to “examine market structure” and analyze whether the indicia of competition are present. *United States v.*

¹³ See also *Time Warner Entm’t Co., L.P. v. FCC*, 56 F.3d 151, 171 (D.C. Cir. 1995) (noting that the lack of “an incentive to be efficient” “is a notorious drawback of cost-of-service regulation”); *Nat’l Rural Telecomm. Ass’n v. FCC*, 988 F.2d 174, 178 (D.C. Cir. 1993) (explaining that cost-based regulation is “inefficien[t]” because “the resulting cost incentives are perverse,” and “is costly to administer, as it requires the agency endlessly to calculate and allocate the firm’s costs”).

Microsoft, 253 F.3d 34, 51 (D.C. Cir. 2001). These exact features were carefully studied by Nasdaq's expert, who concluded that the market for proprietary market data is fully competitive. See Ordover Report at 8-22. Consistent with decades of experience of courts and regulators assessing the presence or absence of competitive forces under antitrust law, this analysis of market structure—not an examination of marginal cost—is the appropriate method for evaluating whether Nasdaq operates in a competitive marketplace.

Likewise, courts have long recognized that the simple fact that a company earns a high profit margin does not mean that the company is immune from competition.¹⁴ SIFMA's effort to point to Nasdaq's profit margins in support of its request for cost-based regulation is thus both economically and legally untenable. The Commission has properly and consistently rejected SIFMA's efforts in this regard in the past, and there is no basis for a contrary result now.

V. CONCLUSION

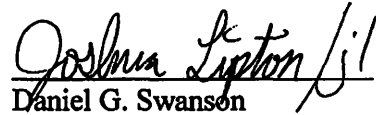
Based on the foregoing, Nasdaq respectfully requests that Your Honor dismiss SIFMA's application challenging Nasdaq's Rule Change.

¹⁴ See, e.g., *Blue Cross & Blue Shield United of Wisc. v. Marshfield Clinic*, 65 F.3d 1406, 1411-12 (7th Cir. 1995) (“[I]t is always treacherous to try to infer monopoly power from a high rate of return [because] measured rates of return reflect accounting conventions more than they do real profits [and] there is not even a good economic theory that associates monopoly power with a high rate of return.”); *Telerate Sys., Inc. v. Caro*, 689 F. Supp. 221, 238 (S.D.N.Y. 1988) (similar); *In re IBM Peripheral EDP Devices Antitrust Litig.*, 481 F. Supp. 965, 981 (N.D. Cal. 1979) (similar).

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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 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.

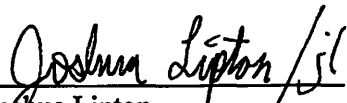
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ATTACHMENT 1

Ordover Report (01.26.2015)

REDACTED VERSION

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

Expert Report of Janusz A. Ordover

January 26, 2015

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I. INTRODUCTION

A. Qualifications

1. My name is Janusz A. Ordover. I am a Professor of Economics and former Director of the Masters in Economics Program at New York University, where I have taught since 1973. From 1991 – 1992, I served as Deputy Assistant Attorney General for Economics at the Antitrust Division of the United States Department of Justice. As the chief economist for the Antitrust Division, I was responsible for formulating and implementing the economic aspects of antitrust policy and enforcement of the United States, including co-drafting the 1992 U.S. Department of Justice and Federal Trade Commission *Horizontal Merger Guidelines*. I also had ultimate responsibility for all of the economic analyses conducted by the Department of Justice in connection with its antitrust investigations and litigation. In addition, I am a Senior Consultant to Compass Lexecon, a leading economic consulting firm.

2. I have authored and co-authored numerous articles on industrial organization economics, law and economics, antitrust, and intellectual property. In particular, I have written and testified on the issues of pricing of information as well as on the benefits and costs of regulatory interventions in markets. My curriculum vitae, which contains a complete list of my publications, as well as a list of the matters in which I have provided testimony as an expert in the past four years, are being produced concurrently with this report.

B. Summary of Conclusions

3. I understand that the Securities Industry and Financial Markets Association (“SIFMA”) has filed applications for review challenging more than five dozen rule changes affecting certain fees charged for “non-core market data” by certain self-regulatory organizations, including the NASDAQ Stock Market (“NASDAQ”).¹ In this proceeding, SIFMA

1. See Commission Order dated May 16, 2014, File Nos. 3-15350, 3-15351.

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challenges “certain rule changes adopted by Nasdaq and NYSE Arca that impose fees for access to depth-of-book market data products.”²

4. I have been asked by counsel for NASDAQ to provide an economic analysis of four issues that have been raised by the Securities and Exchange Commission (“the Commission”) in its ArcaBook Order and/or by the D.C. Circuit in its *NetCoalition I* opinion.

Specifically:

- a. Whether NASDAQ is “subject to significant competitive forces in setting the terms of its proposal for non-core data, including the level of any fees”?³
 - I conclude that it is. See Section III.
- b. Are there competitive alternatives to purchasing depth-of-book data from NASDAQ that provide a competitive constraint on NASDAQ’s pricing? In particular, whether “traders who want depth-of-book data [from NASDAQ] would decline to purchase it if met with a supracompetitive price” in sufficient numbers to constrain NASDAQ’s pricing?⁴
 - I conclude that there are such alternatives and that traders would be able to do so. See Section IV.
- c. Does the economic evidence show that “order flow competition constrains [NASDAQ’s] market data prices”?⁵
 - I conclude that it does. See Section V.
- d. Whether, from an economic perspective, a market-based approach to establishing pricing in this market, as opposed to government regulation, is likely to lead to greater efficiency and enhance consumer welfare?⁶
 - I conclude that it is. See Section VI.

I have also been asked to evaluate SIFMA’s claim that “the cost of producing market data would be direct, if not the best, evidence of whether competition constrains” the price of market

2. SIFMA Request for Issuance of Subpoenas (Dec. 4, 2014).

3. ArcaBook Order, 73 Fed. Reg. at 74,781.

4. *NetCoalition v. SEC*, 615 F.3d 525, 542-43 (D.C. Cir. 2010).

5. *Id.* at 541.

6. The ArcaBook Order asks specifically whether there is “a substantial countervailing basis to find that the terms” of the proposal violate the Exchange Act, despite the existence of competitive forces. See 73 Fed. Reg. at 74,781. I limit my analysis to an examination of the economics of the market and the likely economic impact of government regulation over pricing in this market.

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information, such as depth-of-book products.⁷ I conclude that SIFMA's claim is wrong as a matter of economics and public policy. See Section VII.

5. In addressing these questions, I and Compass Lexecon personnel under my supervision have reviewed a variety of materials; a list of those materials is being produced concurrently with this report. These materials include, without limitation, emails reflecting communications between NASDAQ and its customers, NASDAQ internal presentations, and documents presented to NASDAQ's Board of Directors. These materials fully support my conclusions, and I have provided illustrative examples in the report that follows. In addition, I intend to review all expert reports that are filed in this matter, and I reserve the right to rely on or respond to such evidence. I reach the following major conclusions:

- NASDAQ is subject to significant competitive forces in setting the terms of its proposal for non-core data, including the level of any fees. In particular, I find that the prices of NASDAQ's depth-of-book products are constrained by two types of significant competitive forces:
 - NASDAQ's prices for depth-of-book products are constrained by competition from alternative depth-of-book products, as well as the option to simply decline to purchase NASDAQ's depth-of-book products;
 - NASDAQ's prices for depth-of-book products also are constrained by competition for order flow from other trading platforms, including the threat that customers will divert order flow to other trading platforms (i.e., "platform competition" constrains the price of market data).
- I find no basis for any concern that the terms under which NASDAQ offers depth-of-book products harm market participants.
 - Depth-of-book data products are widely available. The terms under which NASDAQ offers its depth-of-book products do not "unreasonably discriminate" against retail investors or any other group of market participants.
 - A regulatory intervention in a market where competition is effective is likely to lead to a variety of unintended, harmful effects. For example, in the case of depth-of-book data, the reduction in price that SIFMA appears to be advocating could lead to an increase in net trading fees and thus a decline in liquidity on "lit" trading platforms, as well as a reduction in investments to produce more and better market data.

7. See SIFMA Comment Letter and Petition for Disapproval, December 8, 2010 ("SIFMA Letter") at 6. SIFMA's claim was specifically about data products sold by NYSE Arca.

- SIFMA's claim that "the cost of producing market data would be direct, if not the best, evidence of whether competition constrains" the price of market information is wrong as a matter of economics and public policy.
 - In general, in markets whose participants have substantial fixed costs and low marginal costs, competition cannot and does not result in prices equal to any measure of marginal costs because such an outcome would result in a firm with those characteristics failing to earn a normal return on its investment.
 - For a firm that produces "joint products" and incurs "joint costs," it is not possible to meaningfully calculate a rate of return on an individual product because doing so requires an allocation of the joint costs across the array of joint products, which *per force* is arbitrary. Accordingly, for such a firm, it is improper and arbitrary to define a competitive pricing level by comparing prices to marginal or incremental costs.

II. BACKGROUND INFORMATION ON TRADING PLATFORMS AND MARKET DATA

6. Trading platform operators, including NASDAQ, the New York Stock Exchange ("NYSE") and BATS Global Markets ("BATS"), compete on a variety of dimensions,⁸ including the provision of trading services, listing services, technology services, index services and market data.⁹ Exchanges have little or no economic incentive to develop and sell a new product or service unless the new product or service is expected to increase the exchange's total revenue more than its total cost. Different trading platforms may choose different pricing strategies for different services. For example, a platform owner may choose to distribute non-core market information "at no cost" to increase demand for trade execution services on that platform. All else equal, that owner will thus be able to earn more for trade execution services than a platform owner that separately charges for market information.

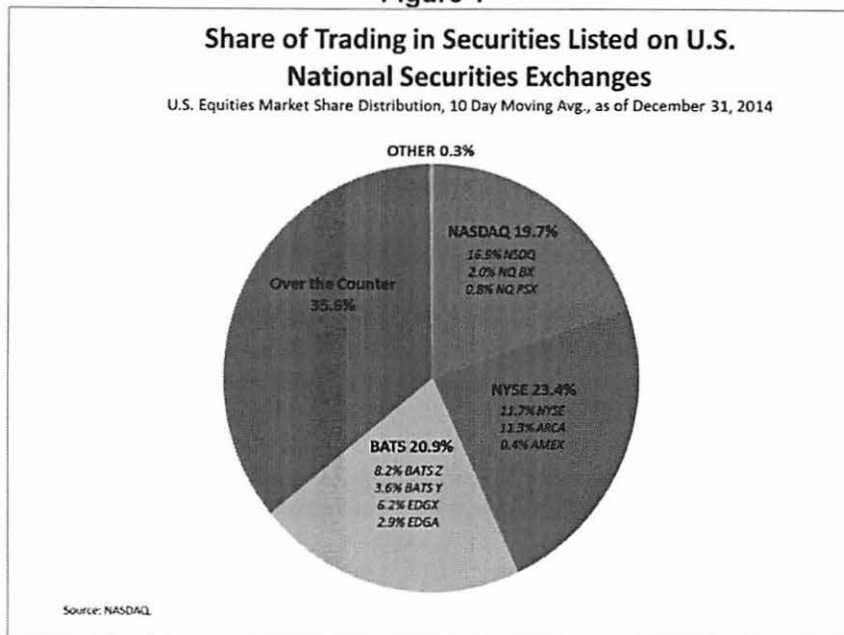
7. Exchanges like NASDAQ, NYSE and BATS compete with each other to provide trading services, as well as with a variety of alternate trading platforms that allow over-the-counter trading. Over-the-counter trading reflects the activities of a large number of entities, including "dark pools," which are multilateral organizations that "pool" the orders of traders. The

8. Trading platform operators, such as NASDAQ, can operate several platforms. NASDAQ, for example, operates the NASDAQ platform as well as the BX and PSX platforms.

9. The Commission mandates that certain types of market information – referred to as "core data" – be made available to all customers. The pricing of core data is subject to regulatory procedures and constraints. See *NetCoalition I*, 615 F.3d at 529.

identities of traders in dark pools, and the prices at which they trade, are not generally known. For this reason, trading in dark pools and other over-the-counter trading is sometimes referred to as “dark,” to distinguish it from trading on exchanges, which is referred to as “lit.” Figure 1 presents the trading shares by platform operator at the end of 2014, and shows that no single platform or platform operator accounts for even 25 percent of trading in U.S. equities.

Figure 1

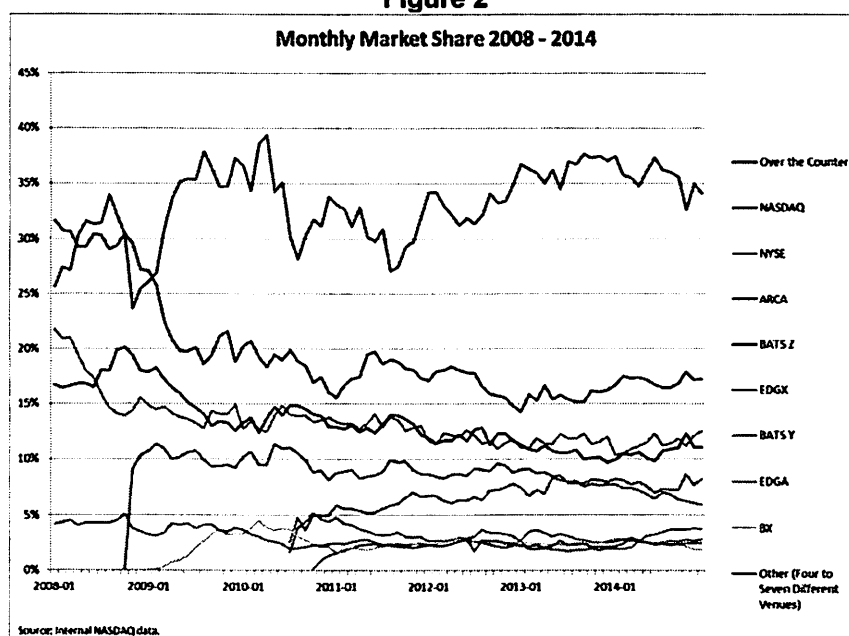


8. Figure 2 shows trading shares by platform since 2008. The rapid rise of BATS and Direct Edge, and the substantial increase in over-the-counter trading (including dark pools), indicates that the business of trading equities is not characterized by substantial barriers to entry or expansion.¹⁰ In the last six years, NASDAQ’s share fell from about 32 percent to about 17 percent; similarly, the share of the NYSE platform fell from about 22 percent to about 13 percent, and the share of the NYSE Arca platform fell from about 17 percent to about 11 percent. In contrast, during the same period, the share of over-the-counter trading increased

10. Both BATS and Direct Edge began as alternative trading platforms. See Jacob Bunge, “BATS, Direct Edge in Talks to Merge: Deal Would Create Second-Largest U.S. Stock-Market Operator,” *Wall Street Journal*, August 23, 2013 (“Direct Edge traces its roots to the 1998 launch of an electronic-trading platform called Attain. BATS was founded in 2005 by Tradebot, a high-frequency trading firm.”).

from about 26 percent to 34 percent. BATS entered as an exchange in late 2008 (with its BATS Z platform), and quickly captured a share of about 10 percent. BATS's second platform (BATS Y) entered as an exchange in late 2010 and had a share of about four percent at the end of 2014. The two Direct Edge platforms entered as exchanges in July 2010 and had an aggregate share of about 10 percent within six months. I understand that entry continued in 2014 with the launch of the Miami Stock Exchange, and is expected to continue in 2015 with the IEX trading platform registering as an exchange.

Figure 2



9. Furthermore, the recent merger of BATS with Direct Edge, which was approved by the Commission in 2014, has been described as further increasing the competition faced by NASDAQ and NYSE for trade flow:

The merged Bats Global Markets, whose owners include Goldman Sachs Group Inc., Morgan Stanley, Credit Suisse (CSGN) Group AG, Citadel LLC, Citigroup Inc. (C) and KCG Holdings Inc. (KCG), will run four exchanges that claim more than 20 percent of daily equity volume to challenge NYSE for the most market share. NYSE and Nasdaq, which converted to public companies about a decade ago, have battled growing competition from Bats and Direct Edge as well as alternative trading venues run by some of the same Wall Street firms that once owned them. Combining the broker-owned exchanges will only heighten the threat, according to Brad Katsuyama, chief executive officer of IEX Group Inc., which runs a dark pool aimed at large investors. "The combination of Bats and Direct Edge now has all the large brokers sitting around the same table, which is definitely not a positive thing for NYSE and Nasdaq given the

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percentage of orders concentrated with these brokers,” said Katsuyama, whose IEX venue plans to become an exchange.¹¹

10. The BATS/Direct Edge merger also has been described as increasing competition for market data. Senior executives at the merged firm “said they saw opportunities to take existing business from Nasdaq and the N.Y.S.E. The older companies make a lot of money selling data to customers, which is possible because of the amount of trading they host. The combined trading volume of BATS and Direct Edge should allow them to come up with their own data offering.”¹²

11. Several of the owners of BATS, including Bank of America Merrill Lynch, Citadel, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, Instinet, J.P.Morgan, KCG, Morgan Stanley and Wedbush, are members of SIFMA; several of these SIFMA members or related entities (Bank of America, Citigroup, Credit Suisse, Goldman Sachs and J.P. Morgan) filed declarations on behalf of SIFMA in this matter.¹³ That is, several members of SIFMA, through their ownership of BATS, have been able to enter the exchange business and compete with NASDAQ and NYSE for trade execution services and the sale of depth-of-book data.

12. By the end of 2014, only 33.2 percent of trading on NYSE-listed stocks, in the aggregate, took place on the NYSE and NYSE Arca platforms.¹⁴ In the same period, NASDAQ’s share of trading in NASDAQ-listed securities was only 30.1 percent.¹⁵ This

11. Sam Mamudi, Bloomberg, “Bats-Direct Edge Merger Puts Traders in Control of Venues,” January 31, 2014.

12. See Michael J. de la Merced and Nathaniel Popper, “BATS and Direct Edge to Merge, Taking on Older Rivals,” *New York Times*, August 26, 2013.

13. See http://www.batsglobalmarkets.com/our_company/facts/owners/ (“BATS Global Markets is a privately-held company with ownership by a consortium of investors, including: Bank of America Merrill Lynch, Citadel, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, Instinet, J.P.Morgan, KCG Holdings, Lime Brokerage, Morgan Stanley, Spectrum Equity, TA Associates, Tradebot Systems, and Wedbush.”). For a list of SIFMA members, see <http://www.sifma.org/amg-member-directory/>.

14. Based on information from the last 10 trading days of December 2014. See <http://nasdaqtrader.com/trader.aspx?id=FullVolumeSummary>.

15. See <http://nasdaqtrader.com/trader.aspx?id=FullVolumeSummary>. Two other platforms owned by NASDAQ, BX and PSX, accounted for an additional 2.5 percent of trading of

evidence shows that no trading platform has a “monopoly” on generating market data on shares listed on that platform.¹⁶

13. NASDAQ sells a variety of depth-of-book products. NASDAQ’s Level 2 product provides information on the best price quoted by each market participant, but does not include every price quoted by each participant. NASDAQ’s TotalView product includes every bid and offer (i.e., the TotalView product contains all of the information in the Level 2 product as well as additional information). NASDAQ offers both Level 2 and TotalView data products for stocks listed on NASDAQ. NASDAQ also offers customers the option of purchasing depth-of-book information on stocks traded on NASDAQ but listed on NYSE and other exchanges. Depth-of-book information for non-NASDAQ listed stocks is called “OpenView.”¹⁷

III. THERE IS ROBUST COMPETITION FOR THE SALE OF DEPTH-OF-BOOK DATA

14. The behavior of NASDAQ and the other exchanges reflects the existence of robust competition for the sale of depth-of-book data, including competition on innovation, product quality, service and price. As a result of this competition, over the past several years market data products from NASDAQ and the other exchanges have been enhanced substantially, while data fees have not increased substantially.

15. The competitive drive toward innovation and product enhancement is illustrated by NASDAQ’s product improvements over the last several years. Some of these innovations have been aimed at improving the quality of NASDAQ’s data products; others have been aimed at increasing the ease of usage or the quality of the user interface; and others have been aimed at reducing customers’ costs of using or accessing NASDAQ’s data. NASDAQ has offered

(...continued)

NASDAQ-listed shares.

16. Although any firm can be described as the “exclusive” seller of its product, it is not appropriate as a matter of economics to describe every firm that sells a differentiated product as a monopolist. For example, General Motors is the “exclusive” seller of Chevrolet cars, but is not a monopolist in a market for automobiles or even in a narrower “market” for family sedans.

17. See Attachment 1 for a description of NASDAQ pricing for depth-of-book products.

depth-of-book products called Level 2, TotalView and OpenView for many years, but I understand that each product has been enhanced numerous times since its introduction, and that these enhancements included: increases in speed of transmission; additions to content; and changes in format and delivery options to improve efficiency.

16. These innovations and product enhancements are consistent with the behavior of a firm in a competitive marketplace, as NASDAQ has sought to improve its product quality (or reduce the costs of usage and implementation) in order to improve its competitive standing in the marketplace, and it has marketed its products to its customers on the basis of these product attributes. Moreover, in many cases these product enhancements were not accompanied by price increases, consistent with competitive constraints on prices.¹⁸ Also consistent with the presence of robust competition for the sale of depth-of-book market, NASDAQ's competitors have been investing in the development and marketing of data products and attempting to match NASDAQ's innovations. This has fueled a competitive "arms race" that has benefited customers through improved products and service and lower costs.¹⁹

17. Finally, the available evidence reflects effective price competition. For example, in seeking approval from the NASDAQ Board [REDACTED]

18. For example, in a December 2012 rule filing in connection with its Level 2 product, NASDAQ explained that, despite making numerous enhancements to the product (such as capacity upgrades and adding data sets), the fee for Level 2 Professional/Corporate subscribers did not increase for nearly 30 years – from its introduction in 1983 until 2012. See SR-NASDAQ-2012-133 at 5 of 35.

19. See, for example, Dec. 22, 2008 email from O. Albers to R. Hopkins et al. [REDACTED] [REDACTED] see also http://cdn.batstrading.com/resources/market_data/products/bats_bats-one-feed.pdf ("BATS One Feed will have the most comprehensive content of any exchange-provided market data product with respect to real-time market information.").

NASDAQ has undertaken extensive efforts to improve its data products and market them aggressively in order to expand the sales of its depth-of-book market data.²⁴

19. In Sections IV and V of this report, I discuss in greater detail the sources of the competitive pressure that constrain NASDAQ's pricing and other competitive behavior, including competition from other exchanges' data products and competition to attract order flow.

IV. PRICES OF NASDAQ'S DEPTH-OF-BOOK PRODUCTS ARE CONSTRAINED BY COMPETITION FROM VENDORS OF OTHER DEPTH-OF-BOOK PRODUCTS

20. Market participants have access to data streams from several suppliers of depth-of-book information. Such data are widely distributed and used by a broad range of data users. NASDAQ depth-of-book products, for example, are purchased by many "subscribers," including both Professional/Corporate and Non-Professional subscribers.²⁵ In December 2014, NASDAQ collected usage fees for depth-of-book products [REDACTED]. Of this total, [REDACTED] were Professional/Corporate subscribers and [REDACTED] were Non-Professional subscribers. The substantial number of subscribers to NASDAQ depth-of-book products indicates that substantial numbers of both types of subscribers derive value from the data that exceeds the price of the data.

21. Because the depth-of-book information from different providers is not necessarily identical, vendors of depth-of-book data compete for customers along several dimensions, including pricing, but not exclusively on price.

[REDACTED]

24. See *id.* at 4 [REDACTED]

25. A NASDAQ customer (e.g., Citigroup, TD Ameritrade) can distribute depth-of-book products to multiple "subscribers," either "internally" (e.g., to traders employed by that customer) or "externally" (e.g., to its clients). A NASDAQ customer typically pays one distributor fee and "usage" fees per subscriber.

- NYSE Arca sells NYSE ArcaBook, a depth-of-book data product that “shows the full limit order book for NYSE Arca traded securities on a real time basis.”²⁶ NYSE also sells NYSE OpenBook, which provides depth-of-book information for the NYSE exchange.
- BATS currently offers depth-of-book products from its exchanges.²⁷ BATS also plans to offer BATS One Feed, a data product that shows “market participants a comprehensive, unified view of the market from all four BATS equity exchanges: BZX Exchange, BYX Exchange, EDGX Exchange and EDGA Exchange.”²⁸ BATS plans to offer two versions of this product, BATS One Summary Feed and BATS One Premium Feed. Both products “provide aggregated quote and trade updates for the BATS Exchanges. The BATS One Premium Feed also includes five levels of aggregate depth information for all four exchanges.”²⁹

22. Even if different data providers’ products are not identical, partial overlaps in terms of the quality of data and other features can nevertheless be highly effective in constraining prices that NASDAQ can charge for its depth-of-book data. To illustrate the point, although Coke and Pepsi are not identical products, competition between them – as well as with other sellers of carbonated soft drinks – constrains their prices to consumers.³⁰ Indisputably, because the loss of data customers also affects the demand for trading, it acts as an additional constraint on NASDAQ’s pricing strategies (see Section V, below).

23. Internal NASDAQ documents indicate that traders’ ability to switch among depth-of-book data suppliers has exerted downward pressure on NASDAQ’s prices. For example, in March 2010, NASDAQ adopted a “non-display” fee cap of \$30,000 per month for internal distributors of TotalView data in response to a competitive threat.³¹ Specifically, [REDACTED]

26. See <http://www.nyxdata.com/Data-Products/NYSE-ArcaBook>.

27. See http://www.batstrading.com/market_data/products/.

28. See http://cdn.batstrading.com/resources/market_data/products/bats_bats-one-feed.pdf.

29. *Id.*

30. Of course, the competitive constraint is more effective the higher is the share of current purchasers that can readily switch some or all of their purchases from NASDAQ (say) to all other data sources in response to changes in relative prices for data charged by different vendors and/or changes in relative data quality. This means that constraints will be effective if there is a “rich” demand “margin” such that an increase in price will induce a significant portion of current customers (buyers of data) to either switch to other sources of data or to repress the intensity of usage.

31. A non-display fee is assessed on subscribers that use the depth-of-book data without displaying it on a screen.

[REDACTED]

[REDACTED] as one would find in an effectively competitive marketplace.³²

24. For another example, in [REDACTED] a customer complained about NASDAQ's depth-of-book fees and threatened to

[REDACTED]

25. Furthermore, NASDAQ internal analyses reflect trader behavior which indicates that customers can, and do, switch depth-of-book data providers. For example, an internal NASDAQ analysis of TotalView customers from [REDACTED] found that "in [REDACTED] we lost [REDACTED] firms while on the other hand adding [REDACTED]" Similarly, "in [REDACTED], we lost [REDACTED] firms while on the other hand adding [REDACTED]"³⁴ These gains and losses of customers indicate that such customers have alternatives to NASDAQ's data products. Similarly, NASDAQ's internal documents indicate that customers turn down depth-of-book data products because they can get sufficient information for their trading purposes without purchasing depth-of-book data, which puts further downward pressure on pricing for those products.³⁵

26. I have analyzed information on NASDAQ's depth-of-book customers, and I find similar patterns of trader behavior – that is, NASDAQ has added as well as lost a substantial number of customers in every year during the period 2008 – 2014.³⁶ See Figure 3, which shows

32. See Dec. 18, 2009 Vote by Unanimous Written Consent.

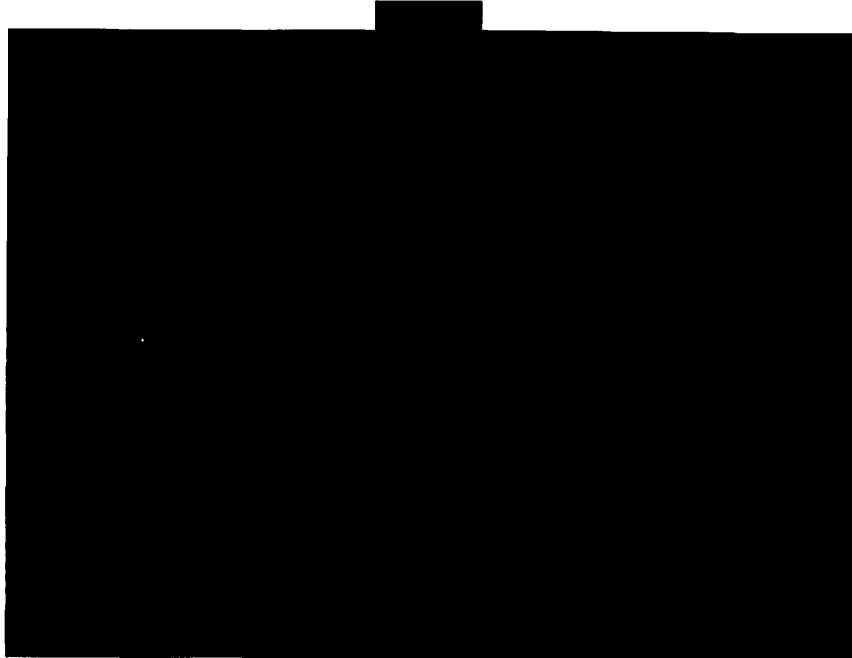
33. E-mail from Eliza Raphael to Oliver Albers, Brandon Tepper, Brian Hyndman, January 7, 2014.

34. See e-mail from Randall Hopkins to Gustav Back and Jeannie Merritt, March 29, 2011.

35. See *id.* [REDACTED]

36. NASDAQ does not track the names of external subscribers to its depth-of-book products, so if a customer switches from being an internal to an external subscriber (i.e., a customer switches from buying depth-of-book data directly from NASDAQ to purchasing it through a distributor, such as Bloomberg) that customer would appear as a "loss" in my analysis;

annual churn rates of [REDACTED]. Because the data needs of actual and potential buyers are likely to be stable, such churn rates are substantial.³⁸



27. In addition to customers that stopped taking NASDAQ depth-of-book data completely, other customers substantially increased or reduced (or both) the number of subscribers that received that data. For example: [REDACTED] increased its number of subscribers from about [REDACTED], then reduced its number of subscribers for NASDAQ depth-of-book data to [REDACTED]. Similarly, [REDACTED] increased its subscriber count from [REDACTED] to [REDACTED], then reduced its number of subscribers to [REDACTED]. [REDACTED] increased its subscriber count

(...continued)

similarly, if a customer switches from being an external to an internal subscriber, it would appear as an "add" in my analysis.

37. I calculate the churn rate as the sum of annual customer additions and losses divided by the total number of customers in that year. In this analysis, I do not control for changes in the total number of firms trading (e.g., I do not control for changes in financial markets associated with the recent Great Recession).

38. My analysis is based on customers purchasing any depth-of-book data from NASDAQ. The internal NASDAQ study appears to be based only on customers purchasing depth-of-book data for internal distribution, so the two studies are not directly comparable.

from [REDACTED] to [REDACTED]; in [REDACTED], [REDACTED] had only about [REDACTED] subscribers.

28. In general, it is not possible to determine from the available data why a customer started or stopped purchasing NASDAQ depth-of-book data. However, based on information I have received in this proceeding, I can compare the names of NASDAQ's depth-of-book customers to NYSE's ArcaBook customers. My analysis shows that NASDAQ customers such as [REDACTED]

[REDACTED] appear to have switched to or from a NASDAQ depth-of-book product to a NYSE Arca product at least once in the years [REDACTED]

[REDACTED]³⁹

29. These data, together with my analysis of customer churn, indicate the existence of significant competitive constraints on NASDAQ's depth-of-book data pricing. Significant numbers of NASDAQ's customers can drop NASDAQ's depth-of-book data products (or reduce the number of users in their enterprise) if NASDAQ were to price those products above their value in the competitive marketplace.

30. SIFMA claims that traders must "have a full picture of liquidity for a given security he or she wishes to trade."⁴⁰ That is, SIFMA implies that traders must have depth-of-book data from all trading platforms in order to trade any security effectively. As such, traders allegedly do not view alternate sources of depth-of-book data as substitute products. SIFMA's claim is wrong:

39. My analysis is based on a comparison of customer names maintained in databases by NASDAQ and NYSE. However, customer names are not standardized across databases, so it is not always possible to determine whether a customer name in one database represents the same entity as a customer name in the other database. Because NASDAQ does not track the names of external subscribers to its depth-of-book products, I am unable to identify external subscribers that switch between NASDAQ and NYSE depth-of-book products (e.g., I am not able to determine if a Bloomberg external subscriber switched from a NASDAQ depth-of-book product to NYSE Arcabook).

40. SIFMA Letter at 10.

- First, although depth-of-book data are used by a variety of market participants, many participants in the equity markets engage in a broad range of financial market activities without relying on NASDAQ depth-of-book data, which indicates that such data are not “essential.”⁴¹ For example, I understand that about 400,000 professional subscribers purchase NASDAQ core data, which shows that many market participants trade (or consider trading) on the NASDAQ platform without purchasing its depth-of-book data. For example, I understand that some traders engage in strategies based on the use of “pegged-to-market” limit orders, which are designed to execute at a purchase price that is at a constant differential from the national best offer or national best bid, and do not involve the use of depth-of-book data.⁴²
- Second, no trader has a “full picture of liquidity” because not all trading is “lit.” For example, as Figure 1 shows, about 35 percent of trades occur “over-the-counter” (e.g., in dark pools or through within-broker “internalization”). Indeed, a growing share of trading that is not “lit” indicates that other financial considerations can readily outweigh the alleged benefits of access to the full picture of liquidity. Thus, depth-of-book data from any or all of the exchanges, although of value to some traders, provides at best a proxy for total liquidity for any particular security at any given point in time.
- Third, even market participants that purchase depth-of-book data do not buy all available depth-of-book data, which shows that many market participants find a subset of the available depth-of-book information adequate for their trading strategies. For example, there is roughly the same number of Level 2 Professional/Corporate subscribers as TotalView Professional/Corporate subscribers [REDACTED]. This indicates that many professionals who purchase some NASDAQ depth-of-book data do not find it necessary to “have a full picture of liquidity.”⁴³ Indeed, if SIFMA’s claim were correct, no market participant would purchase NASDAQ’s Level 2 product because it does not provide a “full picture of liquidity” even on the NASDAQ platform.
- Fourth, some market participants that purchase depth-of-book data from one platform do not purchase such data from multiple platforms, which indicates that for many participants that do use depth-of-book data, it is not necessary to have a “full picture of liquidity” in order to engage in their preferred trading activities. For these market participants, depth-of-book data from just one platform is plainly sufficient. Consequently, for these participants, there is some degree of potential substitution across different sources of depth-of-book data. For example, I find that, on an annual basis, approximately [REDACTED] percent of NASDAQ depth-of-book customers do not purchase NYSE ArcaBook data.⁴⁴

41. There are various definitions of what it means to be an “essential” product or input. Stated simply, an essential input is an input such that absent access to the input, a firm is unable to participate in the marketplace. A less stringent definition states that a firm without access to the input is at a material competitive disadvantage vis-à-vis other market participants.

42. I understand that transaction fees for pegged-to-market limit orders on the NASDAQ exchange are the same as for other limit orders.

43. A similar number of Professional/Corporate subscribers purchase only OpenView depth-of-book products.

44. This analysis is also based on a comparison of customer names maintained in databases by NASDAQ and NYSE.

31. I understand that there may be some customers who may have a “preference” for NASDAQ depth-of-book data. But the fact that some customers may prefer the products of a particular seller does not demonstrate that the seller has the ability to charge prices significantly above competitive levels or can act without regard to competitive forces. For example, some soda drinkers may sufficiently prefer Coke to Pepsi that they would not switch to Pepsi even in the presence of a significant increase in its price. But in the absence of an ability to identify those customers and charge a higher price to them, the presence of such customers does not suggest that Coca-Cola can set prices without regard to competitive constraints. Indeed, it is the presence of customers who would switch in response to a change in relative prices that creates the relevant competitive constraint.

32. There is no ready mechanism whereby NASDAQ can effectively identify customers that have a strong preference for its data products or for executing trades on the NASDAQ platform. Also, I am not aware of any evidence that NASDAQ’s customers cannot move order flow to another platform if efficient trading on NASDAQ – which includes paying for data – becomes more expensive relative to rival “lit” platforms and dark pools. As I discuss in the following section, a threat of moving order flow to another platform is a credible mechanism for constraining rates on data.⁴⁵ In any case, if the costs of certain trading strategies on NASDAQ get out of line with the costs of executing strategies elsewhere, a trader with a preference for trading on NASDAQ can readily shift trading activity to another venue or pursue another strategy and punish NASDAQ for supra-competitive pricing.

45. Because of the regulatory context (e.g., prices are filed; the same price is offered to customers with similar characteristics, such as professional vs. non-professional), depth-of-book prices do not always change rapidly in response to changing market conditions. Certainly, these prices cannot change with day-to-day fluctuations in the volume of transactions on any given trading platform. Over time, underlying changes in the product (such as improvements/innovations), as well as dynamic changes in other market factors (such as the value of the product) are likely to trigger “step” changes in prices and/or the introduction of new fees. As in non-regulated industries, such price changes are not, by themselves, evidence that prices are not constrained by significant market forces.

V. NASDAQ'S PRICES FOR DEPTH-OF-BOOK PRODUCTS ARE ALSO CONSTRAINED BY COMPETITION FOR ORDER FLOW FROM OTHER TRADING PLATFORMS

33. For market participants that use trading strategies requiring depth-of-book data products from the platform on which they tend to trade, the total cost of trading on that platform includes the costs of trading (i.e., trading fees and/or rebates) plus the cost of depth-of-book data (as well as other trading costs, such as telecommunications expenses).⁴⁶ For these market participants, an increase in the price of depth-of-book data increases the “total cost” of trading on that platform.

34. A trading platform must attract orders. This is the fundamental point that needs to be kept in mind when considering public policy towards non-core data pricing. Simply stated, an exchange such as NASDAQ must take into consideration that increasing the price for its depth-of-book product risks losing the business of market participants with trading strategies that make use of NASDAQ depth-of-book data to trade on the NASDAQ exchange.

35. Many of the entities that purchase depth-of-book data products from NASDAQ also provide a substantial number of trades to the NASDAQ platform. These customers can – and do – shift their trading volume from one platform to another. The trading volume from these customers is important to the success of an exchange such as NASDAQ and its platform competitors. Customers that provide substantial trading volume are sophisticated, and they recognize the importance of the trading volume that they provide to NASDAQ and other platforms. Such customers thus can use the threat of shifting trading volume away from a platform (or the promise of shifting trading volume to a platform) to put downward pressure on NASDAQ's prices, including obtaining concessions on depth-of-book data pricing.⁴⁷ For this

46. Some market participants may choose to trade on one platform but use market data from another platform.

47. NASDAQ data customers can, and do, discontinue (or limit) purchasing depth-of-book data from NASDAQ on a monthly basis. Thus, when a trader is deciding whether or not to buy depth-of-book data (or discontinue buying it), the data cost becomes effectively a “marginal” decision.

reason, the total price of trading on NASDAQ is constrained by competition for order flow. As NASDAQ explains in its internal documents, “[f]requently, the sale of [data products] is to the same person responsible for the order flow decision, which creates challenges where the prospect may try to bundle the purchase decision across our business units.”⁴⁸

36. NASDAQ’s documents reflect examples of clients switching, or threatening to switch, order flow in order to constrain NASDAQ’s prices for depth-of-book data products (or, more generally, to put downward pressure on the total cost of trading). For example, in [REDACTED], [REDACTED] objected to NASDAQ’s initiation of a fee for non-display usage, and a [REDACTED] representative told NASDAQ that

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] In addition, [REDACTED]

[REDACTED]

[REDACTED]

37. In another example, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

48. NASDAQ Global Data Products Strategy Discussion July 2010 at 17; see also *id.* [REDACTED]

49. See [REDACTED]

50. See May 31, 2012 email from S. Cunningham [REDACTED]

[REDACTED]

[REDACTED]

38. [REDACTED]

[REDACTED]

39. Despite these examples of competition for order flow across exchanges, SIFMA claims that there is no evidence of this type of “platform competition”:

[a]lthough market share for order flow is volatile and changes dramatically, the Notice identifies no such volatility in the market for depth-of-book data. That market shares for order flow and depth-of-book data do not move in tandem further demonstrates that

51. See Feb. 2, 2011 email from J. Stratico to J. Brooks [REDACTED]

52. See Oct. 11, 2011 email from E. Noll [REDACTED]

53. See Jan. 28, 2010 email from O. Albers to M. Beaver et al.

54. See Feb. 8, 2010 email from B. Tepper to B. Hyndman et al. [REDACTED]

these two products are not jointly bought and sold, undercutting the entire premise of the “platform competition” theory.⁵⁵

SIFMA’s basic premise and claim are inconsistent with economics and evidence.

40. A comparison of shares of order flow and sales of depth-of-book data over short time periods (e.g., “during which market share for order flow is volatile”) does not indicate whether competition for order flow constrains the price of depth-of-book products. Trading decisions can be made on a minute-by-minute basis. Decisions on purchasing any type of data, including depth-of-book data, typically will be made over substantially longer time spans (months or even years), so the share of order flow and the share of depth-of-book data products may not move “in tandem” over time, especially the shorter the time frame under consideration. However, NASDAQ’s customers appreciate this relationship – [REDACTED]

[REDACTED] Moreover, there is an obvious relationship inasmuch as trading on an exchange generates data from that exchange, and more and better data facilitates trading. This is a fundamental relationship between trade flows and data that SIFMA totally ignores.

41. Market share for order flow can be volatile for a variety of reasons unrelated to the cost of depth-of-book data (e.g., certain stocks tend to be more heavily traded on a particular exchange, so shifts in the volume of trading for those stocks can cause shifts in order flow market share). The relevant question is whether competition for trading volume exerts a competitive constraint on the pricing of depth-of-book data. NASDAQ’s customers are sophisticated financial market participants that have demonstrated (as in the above examples) that they are aware of the importance of the trading volume that they provide to NASDAQ and other exchanges. In this respect, it is notable that as the role of an exchange wanes, the demand for data from that exchange also will wane. It is plain that for data-pricing purposes, it

55. SIFMA Letter at 15.

is the long(er)-run relationship that is relevant and not day-to-day volatility in trading that depends on numerous short-term and longer-term shocks.

VI. A MARKET-BASED APPROACH TO PRICING CONDUCTS TO ENHANCED EFFICIENCY AND CONSUMER WELFARE IN COMPARISON TO GOVERNMENT-REGULATED PRICING

42. I understand that the second prong of the SEC's two-part test is whether, even in the presence of significant competitive forces, there are sound policy reasons for concluding that market forces should not be permitted to dictate NASDAQ's depth-of-book data pricing. I am aware of no economic basis to reach such a conclusion here and SIFMA's declarants have not advanced any.

43. As an initial matter, I have seen no evidence that NASDAQ's market data fees cause any inefficiencies in trading, or interfere in any other competitor's ability to sell its products in the competitive marketplace. Market participants make unilateral decisions on whether to purchase market data, and if so how much of it (e.g., Level 2 vs. TotalView) and which options (e.g., display vs. non-display) to purchase. Depth-of-book data are available on standard terms; purchasers of NASDAQ depth-of-book products are not required to trade on a NASDAQ exchange and are not required to purchase depth-of-book products only from NASDAQ. And neither do the price terms offered by NASDAQ depend on whether the customer purchases depth-of-book data from other suppliers (e.g., NASDAQ does not offer a lower price to purchasers that buy depth-of-book data only from NASDAQ). NASDAQ does not implement any commercial strategies with respect to its depth-of-book products that at times may raise competitive concerns.

44. I also find no evidence of "unreasonable discrimination" against any group of market participants. For example, NASDAQ makes available the same depth-of-book data products to both Professional/Corporate and Non-Professional market participants. The only difference is that Non-Professional per-subscriber fees are far lower than the Professional/Corporate per-subscriber fees. I understand that this type of price differentiation –

i.e., lower fees for retail investors – is common in the securities industry and is not considered “unreasonable discrimination.” In addition, because NASDAQ itself does not engage in any trading activities, it has no commercial interest in using data products to advantage itself as a trader: a concern that has arisen in other settings.

45. Furthermore, the particular change in NASDAQ pricing policy at issue in this proceeding is limited to the introduction of “distributor fees” and “direct access fees” on NASDAQ’s Level 2 product.⁵⁶ Prior to the introduction of these fees in 2010, NASDAQ had already been charging the same type of distributor and access fees on its TotalView product. That is, the fees at issue in this proceeding impact only Level 2 customers. I see no basis to conclude that charging distributor fees to Level 2 customers “unreasonably discriminates” against Level 2 customers when TotalView customers are paying similar fees.⁵⁷

46. Unnecessary regulatory intervention in a market where competition is effective is likely to lead to a variety of unintended, harmful effects. For example, in the case of depth-of-book data, the reduction in price that SIFMA appears to be demanding would, all else equal, be expected to reduce the revenues earned by NASDAQ and other exchanges that sell depth-of-book data. In response to a loss in revenue, exchanges would be likely to (1) increase net trading fees; and/or (2) reduce investment in platform businesses, including the production and dissemination of new and innovative market data products.

47. Both outcomes can have substantial harmful effects on market participants. Increases in exchanges’ net trading fees would harm market participants that currently trade on

56. A “direct access” fee allows a customer to directly access NASDAQ’s Level 2 data fees (i.e., instead of accessing the Level 2 data through a distributor). See Attachment 1.

57. I understand that customers that purchased and distributed both Level 2 and TotalView products prior to the fee change in 2010, and thus were already paying distributor and access fees for TotalView products, were not charged additional fees for distributing Level 2 depth-of-book information. As a result, many customers did not pay higher fees as a result of the rule change. For example, I understand that the payments of the nine SIFMA declarants did not increase as a result of the rule change. See Brief of the NASDAQ Stock Market LLC in Response to SIFMA’s Opening Brief Regarding Satisfaction of Jurisdictional Requirements, August 18, 2014, Exhibit A.

exchanges and affect the efficiency of financial markets. Furthermore, such increases in net trading fees on “lit” exchanges would likely increase the share of trading that occurs over-the-counter, and thus reduce liquidity on “lit” trading platforms, further fragment the trading flows, and ultimately reduce the quality of available market data. In this regard, it is notable that some SIFMA members compete with NASDAQ through their over-the-counter trading platforms (or through their ownership interest in BATS). Where one competitor seeks regulatory intervention to hinder a competitor’s ability to set price or distribute its products in a manner dictated by competitive forces, the risk that regulatory intervention could adversely affect the marketplace and harm consumers is particularly acute.

48. A mandated reduction in market data fees also would predictably reduce investment and innovation in the financial platforms, including the production of improved market data products. Such reduced investment could impair the efficiency of the trading mechanism and reduce consumer welfare.

VII. SIFMA’S CLAIM THAT “THE COST OF PRODUCING MARKET DATA” IS THE PROPER GAUGE FOR DETERMINING WHETHER THE PRICE OF MARKET INFORMATION IS SUBJECT TO SIGNIFICANT COMPETITIVE FORCES IS WRONG AS A MATTER OF ECONOMICS AND PUBLIC POLICY

49. SIFMA claims that “the costs incurred in collecting and distributing depth-of-book data itself are relevant in assessing the reasonableness of the fees an exchange charges for the data because ‘in a competitive market, the price of a product is supposed to approach its marginal cost, i.e., the seller’s cost of producing one additional unit.’⁵⁸ SIFMA’s claim is wrong as matter of economics and public policy. Despite SIFMA’s claims that the “marginal cost” of producing data should be reviewed in this proceeding, SIFMA provides no guidance on how it believes such information should be used to evaluate the degree of competition faced by NASDAQ for its depth-of-book products.

58. SIFMA Letter at 5 – 6 (citation omitted).

50. In this market – as in many markets – a more appropriate methodology to evaluate the presence or absence of competition and market power is through an assessment of the structure of the market and the existence of competitive forces that constrain pricing (as I have presented in the earlier sections of this report). Furthermore, I show that evaluating the competitive constraints faced by NASDAQ on the basis of the marginal costs of data production, or reported margins or rates of return on its data business, is not economically meaningful.

A. Marginal-Cost Pricing is Not Sustainable in Industries with High Fixed Costs and Low Marginal Costs

51. SIFMA's citation is to the *NetCoalition I* decision, which cites *Tejas Power Corp.* for the proposition that “[i]n a competitive market, where neither buyer nor seller has significant market power, it is rational ... to infer that price is close to marginal cost, such that the seller makes only a normal return on its investment.”⁵⁹ SIFMA's position here is wrong because it ignores that, over the long-haul, firms must earn at least a normal risk-adjusted return on their investments in order to remain viable.

52. In general, in markets in which firms have substantial fixed costs and low marginal costs, which results in increasing returns to scale, competition cannot and does not result in prices equal to marginal costs. Indeed, if firms were constrained to price at or close to marginal costs in such markets, those firms would not be able to earn a normal return on their investments. This, in turn, would result in firms being forced to exit the industry. Thus, SIFMA's notion that only prices equal to marginal cost are consistent with competition is wrong as a matter of economics and public policy.

53. Prices that are above marginal cost are common in industries with substantial fixed costs and low marginal costs, such as content businesses, even if competition is fierce. This is because, in content markets (including data), pricing at marginal cost simply would not provide a sufficient return to permit suppliers to recover their costs of producing and supplying

59. *NetCoalition I*, 615 F.3d at 537 (emphasis added).

the content to the customer. For example, the price of a hardcover book is far in excess of the marginal cost of printing and distributing the book content to an incremental customer. But it is an obvious economic fallacy to conclude that pricing above marginal cost indicates that a publisher of a copyrighted hardcover book is a “monopolist” in an economically meaningful sense. Competition among publishers and book titles does not drive book prices to marginal costs because a publisher needs to cover the “first copy” costs that are incurred whether the book sells few copies or becomes a bestseller. Competition among publishers – like competition among trading venues, “lit” or “dark” – constrains the overall rates of return.

54. SIFMA members likely understand this point since they do not invariably price their own services at marginal cost. For example, SIFMA declarant Bloomberg, which produces and disseminates content, prices its products (e.g., fees on Bloomberg terminals) in excess of its marginal costs (i.e., the marginal cost of providing information to one more subscriber once that information has been developed is close to zero). I understand that Bloomberg also “passes through” the usage fees for NASDAQ depth-of-book data and charges its clients an additional fee for receiving the data. In contrast, I understand that some SIFMA members (e.g., Charles Schwab, TD Ameritrade) purchase depth-of-book data from NASDAQ and provide that information to their customers “for free.” That is, these SIFMA members price the information product to their customers at “below” marginal cost and make up their losses on other products, which they price “above” marginal cost. In general, such a practice is only economically feasible if those same SIFMA members charge those (or other) customers more than marginal cost for other services. SIFMA members unilaterally choose how to structure their fees – above or below the relevant marginal cost – subject only to competitive considerations.

B. Product-Specific Measures of Profit or Margin are Not Economically Meaningful in Industries with Joint Products and Joint Costs

55. In markets with “joint products” with “joint costs,” it is not possible to meaningfully calculate a “competitive” or “supra-competitive” rate of return or margin on an individual product. This is because an allocation of the joint costs, which affects the rates of return across joint

products, is to some extent arbitrary. Trading platforms such as exchanges provide a variety of services and products, including trade execution services and market data. Because market data is both an input to and a byproduct of executing trades on a particular platform, market data and trade execution services are examples of “joint products” with “joint costs.”⁶⁰ To illustrate: one could “allocate” all the costs of the platform to trading, to data production, or anywhere in between. The resulting rates of return or profits on trading or data would depend on the chosen allocation rule – not on the presence or absence of competition. Thus, NASDAQ’s reported margins on its market data business reflect an accounting allocation of common costs between the trading and the market data businesses that were adopted for a variety of internal business reasons. These accounting returns provide no indication about the extent of competition in the market data business.⁶¹

56. The costs incurred by the platforms include directly “allocable costs” as well as costs that are jointly incurred on behalf of subsets or all the relevant products and services.⁶² For accounting purposes, joint costs may be allocated across business lines for particular business reasons (such as a need to have a particular business unit be responsible for managing a particular cost center). However, from an economic standpoint, no one such

60. It is widely accepted that there is no meaningful way to allocate “common costs” across different joint products. For this reason, “cost-based” regulation of the price of market data would require inherently arbitrary cost allocations.

61. See Franklin M. Fisher and John J. McGowan, “On the Misuse of Accounting Rates of Return to Infer Monopoly Profits,” *American Economic Review*, 1983.

62. A classic example of joint products with joint costs is “beef and hides.” A farmer who raises cattle and sells beef and hides incurs joint costs – such as the cost of cattle feed – that cannot be unambiguously allocated to either beef or hides. Thus, there is no economically meaningful way to calculate the “margin” that a farmer earns on beef as compared to the margin the farmer earns on hides. Competition among farmers will constrain the margin a farmer earns on cattle, which reflects revenue from sales of both beef and hides and the total costs of raising cattle. Beef and hides then contribute to the recovery of joint and common costs in proportion to each product’s markup of the realized price over product-specific marginal cost multiplied by the volume of sales. Note, however, that this is an *ex post* calculation that can only be made once sales volumes and product prices are known.

allocation methodology is preferred to another and all have problems for the overall efficiency of a firm's operations, business decisions, and potential long-term viability.

57. Even if one product in a high-fixed cost industry could be regarded as simply a by-product of another activity, that would not mean that its price should be forced to zero. Instead, insofar as there is demand for that product at a positive price, the price for that product should reflect that demand. A positive price will tend to reduce the burden of cost recovery on the other product and reduce its price with beneficial effects on the volume of activity. Thus, even if information could be "produced" at zero marginal cost, which it is not, economic principles mandate that it nevertheless ought to be priced to the willing buyers at a price higher than the associated marginal cost.⁶³

58. The total return that a trading platform earns reflects the total revenues it receives from all of the products it sells, including sales of the joint products, and the total costs it incurs, including joint costs. Competition among trading platforms predictably constrains the aggregate return each platform earns from its sale of joint and other products, although different platforms may choose different strategies of pricing and cost recovery.

59. As already discussed, competition among trading platforms is intense, and can be expected to constrain the aggregate return each platform earns from its sale of joint products. From the standpoint of overall efficiency and the economic health of the financial market system(s), what matters is that the long-run, risk-corrected rates of return on operating the platforms are constrained to competitive levels and that the efficient functioning of the financial markets is not impeded by barriers to trading and information acquisition and dissemination.⁶⁴ SIFMA has not provided any evidence that NASDAQ earns a supra-

63. In certain circumstances (e.g., when a firm produces complementary products), deviations from this prescription can be warranted.

64. For a discussion of efficiency in financial markets, see Larry Harris, *Trading and Exchanges: Market Microstructure for Practitioners*, 2002.

competitive return on its platform businesses (i.e., including trading services and market data) or that entry into operation of trading venues, including dark pools, is protected by entry barriers.

C. SIFMA's Position Implies that Cost-Based Regulation Should be Used to Regulate the Price of Depth-of-Book Data Products

60. SIFMA has stated that "it has never been our position that the Exchange Act requires strict, cost-of-service ratemaking."⁶⁵ Nevertheless, SIFMA appears to be claiming that competition does not sufficiently constrain the price of depth-of-book data.

61. Because SIFMA takes the position that depth-of-book pricing is not constrained by competition, presumably SIFMA believes that such prices need to be constrained by some form of regulation or regulatory oversight. Furthermore, SIFMA's demand for cost information suggests that it believes that appropriate prices must be tied in some way to costs. Although SIFMA claims not to be advocating "strict, cost-of-service ratemaking," its proposal provides no guidance to a decision-maker regarding the mechanism for setting prices for depth-of-book data. It is widely accepted that cost-based regulation can create significant inefficiencies and distortions. At least in part for this reason, such regulation has been widely abandoned or replaced with other forms of regulation in a variety of industries (e.g., telecommunications).

VIII. SUMMARY OF CONCLUSIONS

62. The prices of NASDAQ's depth-of-book products are constrained by two types of significant competitive forces (1) competition from alternative depth-of-book products, as well as the option to simply decline to purchase NASDAQ's depth-of-book products; and (2) competition for order flow from other trading platforms, including the threat that customers will divert order flow to other trading platforms.

63. I find no basis for any concern that the terms under which NASDAQ offers depth-of-book products harm market participants. Depth-of-book data products are widely available. The terms under which NASDAQ offers its depth-of-book products do not "unreasonably

65. SIFMA Letter at 6.

discriminate” against retail investors or any other group of market participants. A regulatory intervention in a market where competition is effective is likely to lead to a variety of unintended, harmful effects.

64. In general, in markets whose participants have substantial fixed costs and low marginal costs, competition cannot and does not result in prices equal to any measure of marginal costs because such an outcome would result in a firm with those characteristics failing to earn a normal return on its investment. Furthermore, for a firm that produces “joint products” and incurs “joint costs,” it is not possible to meaningfully calculate a rate of return on an individual product because doing so requires an arbitrary allocation of the joint costs across the array of joint products. Accordingly, for such a firm, it is improper and arbitrary to define a competitive pricing level by comparing prices to marginal or incremental costs.

A handwritten signature in black ink, appearing to read 'J. Ordover'.

Janusz A. Ordover

REDACTED VERSION

Attachment 1

Description of NASDAQ Pricing of Depth-of-Book Products

1. The price of purchasing NASDAQ depth-of-book information depends on a variety of factors. For example, the “usage fee” for Level 2 information differs for “Professional/Corporate” and “Non-Professional” subscribers. In particular, the current usage fee for Level 2 information is \$50 per month per Professional/Corporate subscriber and \$9 per month per Non-Professional subscriber. The usage fee for OpenView information for Level 2 customers is \$6 per month per Professional/Corporate subscriber (i.e., a subscriber that purchases Level 2 and OpenView pays \$56 = \$50 + \$6 per month per Professional/Corporate subscriber) and \$1 per month per Non-Professional subscriber.¹ NASDAQ also offers “enterprise licenses” that allow a customer that meets specified criteria to choose between paying a fixed monthly fee plus a reduced rate per subscriber,² or a fixed fee for an unlimited number of subscribers. Both types of license can be used to reduce the cost of depth-of-book data.

2. In addition, “direct access” customers (i.e., customers that receive a direct data feed from NASDAQ) can choose to pay for “non-display” subscribers (e.g., computers that receive depth-of-book information directly from NASDAQ). NASDAQ direct access customers pay a “tiered” monthly fee that depends on the number of subscribers (e.g., \$3,300 per month for 11 to 29 subscribers).

3. In addition to usage fees, NASDAQ also charges “distributor” fees for Level 2 and OpenView information. For example, a firm that purchases Level 2 information for

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1. A customer can pay one usage fee for a subscriber taking Level 2 and OpenView data (i.e., \$56 per month). I understand that a customer may instead pay two usage fees (i.e., \$50 for Level 2 and \$6 for OpenView) for the same subscriber.
 2. For example, a TotalView / OpenView enterprise license in 2015 for Professional/Corporate subscribers was priced at \$100,000 per month plus applicable Level 2 subscriber fees (i.e., a holder of an enterprise license paid the monthly Level 2 fee instead of the higher TotalView / OpenView fee per subscriber).

REDACTED VERSION

- 2 -

NASDAQ-listed stocks pays a fee of \$1,000 per month for internal distribution or \$2,500 per month for external distribution (e.g., distribution of Level 2 information to its clients). A direct access customer also pays a monthly fee (e.g., \$2,000 for NASDAQ-listed stocks). See Table 1 for a reproduction of NASDAQ's current price list for Level 2 products (with or without OpenView information).

4. Customers can also choose options that allow them to distribute the NASDAQ data feed widely through their own customized applications (Managed Data Solution; Enhanced Display Solution).

Table 1

Nasdaq Level 2		
Entitlement Name	Security Coverage	Monthly Fee
Usage Fees		
Nasdaq Level 2 with Nasdaq OpenView	Nasdaq Issues	Professional/Corporate: \$50 per subscriber Non-Professional: \$9 per subscriber
	NYSE and NYSE MKT Issues	Professional/Corporate: \$6 per subscriber Non-Professional: \$1 per subscriber
Enhanced Display Solution	Nasdaq Issues	Professional/Corporate: \$74 per subscriber Non-Professional: \$14 per subscriber
	NYSE and NYSE MKT Issues	Professional/Corporate: \$6 per subscriber Non-Professional: \$1 per subscriber
<u>Nasdaq Depth Non-Direct</u> (Direct Access Only)	Nasdaq, NYSE and NYSE MKT Issues	1 to 10 subscribers = \$300 per subscriber 11 to 29 subscribers = \$3,300 30 to 49 subscribers = \$9,000 50 to 99 subscribers = \$15,000 100 to 249 subscribers = \$30,000 250 subscribers or more = \$75,000
<u>Nasdaq Depth Non-Direct Platform</u>	Nasdaq, NYSE and NYSE MKT Issues	\$5,000 per Trading Platform (up to a maximum charge of \$15,000)
Managed Data Solution (Internal Use Only)	Nasdaq, NYSE and NYSE MKT Issues	Professional/Corporate: \$300 per subscriber Non-Professional: \$60 per subscriber
Depth Distributor Fees		
Nasdaq Depth Fee for NQDS	Nasdaq Issues	Internal Distribution: \$1,000 per firm External Distribution: \$2,500 per firm Direct Access: \$2,000 per firm
Nasdaq Depth Fee for OpenView	NYSE and NYSE MKT Issues	Internal Distribution: \$500 per firm External Distribution: \$1,250 per firm Direct Access: \$1,000 per firm
<u>Enhanced Display Solution</u>	Nasdaq, NYSE and NYSE MKT Issues	1 to 399 Subscribers = \$4,000 400 to 999 Subscribers = \$7,500 1,000 or more Subscribers = \$15,000

plus applicable EDG Level 2 and OpenView subscriber fees

Source: <http://www.nasdaqtrader.com/Trader.aspx?id=DPUSData>.

5. The pricing of NASDAQ's TotalView product has a similar structure – for example, TotalView customers also pay usage fees that depend on Professional/Corporate vs. Non-Corporate status and distributor fees that depend on internal vs. external distribution. I understand that the specific NASDAQ rule change at issue in this proceeding is the introduction

REDACTED VERSION

- 3 -

of distributor fees on NASDAQ's Level 2 product in 2010. That is, prior to that rule change, NASDAQ charged only usage fees for its Level 2 product, while it charged usage and distributor fees for its TotalView product.

Materials Relied On

Court Filings and Decisions:

ArcaBook Order, 73 Fed. Reg. at 74,781

Brief of the NASDAQ Stock Market LLC in Response to SIFMA's Opening Brief Regarding Satisfaction of Jurisdictional Requirements, August 18, 2014

SIFMA Request for Issuance of Subpoenas, December 4, 2014

NetCoalition v. SEC, 615 F.3d 525 (D.C. Cir. 2010)

Commission Order Establishing Procedures and Referring Applications for Review to Administrative Law Judge for Additional Proceedings, Release No. 72182, May 16, 2014, File Nos. 3-15350, 3-15351

Academic Literature:

Franklin M. Fisher and John J. McGowan, "On the Misuse of Accounting Rates of Return to Infer Monopoly Profits," *American Economic Review*, 1983

Larry Harris, *Trading and Exchanges: Market Microstructure for Practitioners*, 2002

Emails:

NASDAQ000001-5

NASDAQ000010

NASDAQ000024-26

NASDAQ000006-9

NASDAQ000027-32

NASDAQ000034-41

NASDAQ000018-19

NASDAQ000013-17

Organizational Websites (accessed January 23, 2015):

http://cdn.batstrading.com/resources/market_data/products/bats_bats-one-feed.pdf

<http://nasdaqtrader.com/trader.aspx?id=FullVolumeSummary>

http://www.batsglobalmarkets.com/our_company/facts/owners/

http://www.batstrading.com/market_data/products/

<http://www.nyxdata.com/Data-Products/NYSE-ArcaBook>

<http://www.sifma.org/amg-member-directory/>

<http://www.nasdaqtrader.com/Trader.aspx?id=DPUSData#lt>

News Reports:

Jacob Bunge, "BATS, Direct Edge in Talks to Merge: Deal Would Create Second-Largest U.S. Stock-Market Operator," Wall Street Journal, August 23, 2013

Michael J. de la Merced and Nathaniel Popper, "BATS and Direct Edge to Merge, Taking on Older Rivals," New York Times, August 26, 2013

Sam Mamudi, Bloomberg, "Bats-Direct Edge Merger Puts Traders in Control of Venues," January 31, 2014

Data:

nasdaq_dob_transactions.xlsx

NASDAQ US Equity Market Share Data 2008-2014.xlsx

Arca Customer-level Subscriber Data.xlsx

NASDAQ Release Schedules:

NASDAQ000520-535

NASDAQ000536-554

NASDAQ000555-570

NASDAQ000571-583

NASDAQ000584-600

NASDAQ000601

Other:

SIFMA Comment Letter and Petition for Disapproval, December 8, 2010

NASDAQ000252-273

NASDAQ000311-317

NASDAQ000318-319

NASDAQ000392-396

NASDAQ000403-437

NASDAQ000369-382

Level 2 charts.xlsx

TotalView charts.xlsx

OpenView charts.xlsx

January 2015

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EDUCATION

- 1968-1973 Columbia University, New York, New York
Graduate Department of Economics and European Institute of the School of International Affairs
Doctoral Dissertation: Three Essays on Economic Theory (May 1973). Ph.D. 1973.
- 1967-1968 McGill University, Montreal, Canada
Departments of Economics and Political Science
- 1963-1966 Warsaw University, Warsaw, Poland
Department of Political Economy. B.A. (equiv.), 1966.

HONORS

- 2011 "The Economist of the Year 2010" voted by the Global Competition Review
- 1973 Columbia University: Highest distinction for the doctoral dissertation
- 1971-1972 Columbia University: Honorary President's Fellow
- 1969-1971 Columbia University: President's Fellow
- 1967-1968 McGill University: Honors Student
- 1964, 1965 Warsaw University: Award for Academic Achievement, Department of Political Economy
- Who's Who in the World
Who's Who in America
Who's Who in the East

PROFESSIONAL EXPERIENCE

- June 1982 - present Professor of Economics
Department of Economics, New York University, New York, New York

Sept. 1996 - Director of Masters in Economics Program
 Aug. 2001 Department of Economics, New York University, New York, New York

Summer 1996- Lecturer
 2000 International Program on Privatization and Reform
 Institute for International Development, Harvard University, Cambridge, Massachusetts

Aug. 1991 - Deputy Assistant Attorney General for Economics
 Oct. 1992 Antitrust Division
 United States Department of Justice, Washington, D.C.

Sept. 1989 - Visiting Professor of Economics
 July 1990 School of Management, Yale University, New Haven, Connecticut

Lecturer in Law
 Yale Law School

Mar. 1984 - Visiting Professor of Economics
 June 1988 Università Commerciale "Luigi Bocconi," Milan, Italy

June 1982 - Director of Graduate Studies
 Feb. 1985 Department of Economics, New York University

Sept. 1982 - Adjunct Professor of Law (part-time)
 June 1986 Columbia University Law School, New York, New York

Feb. 1982 - Acting Director of Graduate Studies
 June 1982 Department of Economics, New York University

June 1978 - Associate Professor of Economics
 June 1982 Department of Economics, New York University

Sept. 1979 - Lecturer in Economics and Antitrust
 May 1990 New York University Law School

Sept. 1977 - Member, Technical Staff
 June 1978 Bell Laboratories, Holmdel, New Jersey

Associate Professor of Economics
 Columbia University

Visiting Research Scholar
 Center for Law and Economics, University of Miami, Miami, Florida

Sept. 1973 - Assistant Professor of Economics
 Aug. 1977 New York University

Summer 1976 Fellow, Legal Institute for Economists,
 Center for Law and Economics, University of Miami

Summer 1976 Visiting Researcher Bell Laboratories, Holmdel, New Jersey

OTHER PROFESSIONAL ACTIVITIES

2011 Organizer
Session on the 2010 Agencies Horizontal Merger Guidelines, 2011 Spring Meetings, Antitrust Section,
American Bar Association, Washington DC

2010 – present Member
ABA Section of Antitrust Law, Economics Task Force

2006 - present Special Consultant
Compass Lexecon (formerly Compass)/FTI Company, Washington, D.C.

2003 - 2006 Director
Competition Policy Associates, Inc. (“Compass”), Washington, D.C.

1997 – 1999 Consultant
Inter-American Development Bank, Washington, D.C.

1997 – 2009 Board of Editors
Antitrust Report

1995 – 2001 Consultant
The World Bank, Washington, D.C.

1998 – 2004 Senior Consultant
Applied Economic Solutions, Inc., San Francisco, California

1995 - 2000 Senior Affiliate
Cornerstone Research, Inc., Palo Alto, California

Various Testimony at Hearings of the Federal Trade Commission

1994 - 1996 Senior Affiliate
Law and Economics Consulting Group, Emeryville, California

1994 - 2000 Senior Affiliate
Consultants in Industry Economics, LLC, Princeton, New Jersey

1993 - 1994 Director
Consultants in Industry Economics, Inc., Princeton, New Jersey

1992 - 1993 Vice-Chair (*pro tempore*)
Economics Committee, American Bar Association, Chicago, Illinois

1990 - 1991 Senior Consultant
1992 - 1995 Organization for Economic Cooperation and Development, Paris, France

1991 Member
Ad hoc Working Group on Bulgaria's Draft Antitrust Law
The Central and East European Law Initiative
American Bar Association

1990 - 1991 Advisor
Polish Ministry of Finance and Anti-Monopoly Office
Warsaw, Poland

- 1990 - 1991 Member
Special Committee on Antitrust
Section of Antitrust Law, American Bar Association
- 1990 - 1991 Director and Senior Advisor
Putnam, Hayes & Bartlett, Inc., Washington, D.C.
- 1990 - 1996 Member
Predatory Pricing Monograph Task Force
Section of Antitrust Law, American Bar Association
- 1989 Hearings on Competitive Issues in the Cable TV Industry
Subcommittee on Monopolies and Business Rights of the Senate Judiciary Committee
Washington, D.C.
- 1989 Member
EEC Merger Control Task Force, American Bar Association
- 1988 -
present Associate Member
American Bar Association
- 1987 - 1989 Adjunct Member
Antitrust and Trade Regulation Committee, The Association of the Bar of the City of New York
- 1984 Speaker, "Industrial and Intellectual Property: The Antitrust Interface"
National Institutes, American Bar Association, Philadelphia, Pennsylvania
- 1983 - 1990 Director
Consultants in Industry Economics, Inc.
- 1982 Member
Organizing Committee
Tenth Annual Telecommunications Policy Research Conference, Annapolis, Maryland
- 1981 Member
Section 7 Clayton Act Committee, Project on Revising Merger Guidelines
American Bar Association
- 1980 Organizer
Invited Session on Law and Economics
American Economic Association Meetings, Denver, Colorado
- 1978 - 1979 Member
Department of Commerce Technical Advisory Board
Scientific and Technical Information Economics and Pricing Subgroup
- 1978 – present Referee for numerous scholarly journals, publishers, and the National Science Foundation

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

American Economic Association
American Bar Association

PUBLICATIONS

A. Journal Articles

- “Coordinated Effects in Merger Analysis: An Introduction,” *Columbia Bus. Law Review*, No. 2, 2007, 411-36.
- “Wholesale access in multi-firm markets: When is it profitable to supply a competitor?” with Greg Shaffer, *International Journal of Industrial Organization*, vol. 25 (5), October 2007, 1026-45.
- “Merchant Benefits and Public Policy towards Interchange: An Economic Assessment,” with M. Guerin-Calvert, *Review of Network Economics: Special Issue*, vol. 4 (4), December 2005, 381-414.
- “All-Units Discounts in Retail Contracts,” with S. Kolay and G. Shaffer, *J. of Economics and Management Strategy*, vol. 13 (3), September 2004, 429-59.
- “Archimedean Leveraging and the GE/Honeywell Transaction,” with R. J. Reynolds, *Antitrust Law Journal*, vol. 70, no. 1, 2002, 171-98.
- “Entrepreneurship, Access Policy and Economic Development: Lessons from Industrial Organizations,” with M. A. Dutz and R. D. Willig, *European Economic Review*, vol. 4, no. 4-6, May 2000.
- “Parity Pricing and its Critics: Necessary Condition for Efficiency in Provision of Bottleneck Services to Competitors,” with W. J. Baumol and R. D. Willig, *Yale Journal on Regulation*, vol. 14, Winter 1997, 146-63.
- “Competition and Trade Law and the Case for a Modest Linkage,” with E. Fox, *World Competition, Law and Economics Review*, vol. 19, December 1995, 5-34.
- “On the Perils of Vertical Control by a Partial Owner of Downstream Enterprise,” with W.J. Baumol, *Revue D'économie industrielle*, No. 69, 3^e trimestre 1994, 7-20.
- “Competition Policy for Natural Monopolies in Developing Market Economy,” with R.W. Pittman and P. Clyde, *Economics of Transition*, vol. 2, no. 3, September 1994, 317-343. Reprinted in B. Clay (ed.), *De-monopolization and Competition Policy in Post-Communist Economies*, Westview Press 1996, 159-193.
- “The 1992 Agency Horizontal Merger Guidelines and the Department of Justice's Approach to Bank Merger Analysis,” with M. Guerin-Calvert, *Antitrust Bulletin*, vol. 37, no. 3, 667-688. Reprinted in *Proceedings of the 1992 Conference on Bank Structure and Competition: Credit Markets in Transition*, Federal Reserve Bank of Chicago, 1992, 541-560.
- “Entry Analysis Under the 1992 Horizontal Merger Guidelines,” with Jonathan B. Baker, *Antitrust Law Journal*, vol. 61, no. 1, Summer 1992, 139-146.
- “Economics and the 1992 Merger Guidelines: A Brief Survey,” with Robert D. Willig, *Review of Industrial Organization*, vol. 8, 139-150, 1993. Reprinted in E. Fox and J. Halverson (eds.), *Collaborations Among Competitors: Antitrust Policy and Economics*, American Bar Association, 1992, 639-652.
- “Equilibrium Vertical Foreclosure: A Reply,” with G. Saloner and S.C. Salop, *American Economic Review*, vol. 82, no. 3, 1992, 698-703.
- “A Patent System for Both Diffusion and Exclusion,” *Journal of Economic Perspectives*, vol. 5, Winter 1991, 43-60.
- “R&D Cooperation and Competition,” with M. Katz, *Brookings Papers on Economic Activity: Microeconomics*, 1990, 137-203.

“Equilibrium Vertical Foreclosure,” with G. Saloner and S. Salop, *American Economic Review*, vol. 80, March 1990, 127-142.

“Antitrust Policy for High-Technology Industries,” with W.J. Baumol, *Oxford Review of Economic Policy*, vol. 4, Winter 1988, 13-34. Reprinted in E. Fox and J. Halverson (eds.), *Collaborations Among Competitors: Antitrust Policy and Economics*, American Bar Association, 1991, 949-984.

“Conflicts of Jurisdiction: Antitrust and Industrial Policy,” *Law and Contemporary Problems*, vol. 50, Summer 1987, 165-178.

“Market Structure and Optimal Management Organization,” with C. Bull, *Rand Journal of Economics*, vol. 18, no. 4, Winter 1987, 480-491.

“A Sequential Concession Game with Asymmetric Information,” with A. Rubinstein, *Quarterly Journal of Economics*, vol. 101, no.4, November 1986, 879-888.

“The G.M.-Toyota Joint Venture: An Economic Assessment,” with C. Shapiro, *Wayne Law Journal*, vol. 31, no. 4, 1985, 1167-1194.

“Economic Foundations and Considerations in Protecting Industrial and Intellectual Property: An Introduction,” *Antitrust Law Journal*, vol. 53, no. 3, 1985. 503-518, Comments, 523-532.

“Antitrust for High-Technology Industries: Assessing Research Joint Ventures and Mergers,” with R.D. Willig, *Journal of Law and Economics*, vol. 28, May 1985, 311-334.

“Use of Antitrust to Subvert Competition,” with W.J. Baumol, *Journal of Law and Economics*, vol. 28, May 1985, 247-266. Reprinted in *Journal of Reprints for Antitrust Law and Economics*, vol. 16, no. 2.

“Advances in Supervision Technology and Economic Welfare: A General Equilibrium Analysis,” with C. Shapiro, *Journal of Public Economics*, vol. 25/3, 1985, 371-390.

“Predatory Systems Rivalry: A Reply,” with A. O. Sykes and R. D. Willig, 83 *Columbia Law Review*, June 1983, 1150-1166. Reprinted in *Corporate Counsel*, Matthew Bender & Company, 1984, 433-450.

“The 1982 Department of Justice Merger Guidelines: An Economic Assessment,” with R. D. Willig, 71 *California Law Review*, March 1983, 535-574. Reprinted in *Antitrust Policy in Transition: The Convergence of Law and Economics*, E. Fox and J. Halverson (eds.), American Bar Association Press, 1984, 267-304.

“Unfair International Trade Practices,” with A. O. Sykes and R. D. Willig, 15 *Journal of International Law and Politics*, Winter 1983, 323-338.

“On Non-linear Pricing of Inputs,” with J. Panzar, *International Economic Review*, October 1982, 659-675.

“Herfindahl Concentration, Rivalry and Mergers,” with A. O. Sykes and R. D. Willig, *Harvard Law Review*, vol. 95, June 1982, 1857-1875.

“A Reply to ‘Journals as Shared Goods: Comment,’” with R. D. Willig, *American Economic Review*, June 1982, 603-607.

“Proposed Revisions to the Justice Department’s Merger Guidelines,” with S. Edwards, *et al.*, *Columbia Law Review*, vol. 81, December 1981, 1543-1591.

“An Economic Definition of Predation: Pricing and Product Innovation,” with R.D. Willig, *Yale Law Journal*, vol. 91, November 1981, 8-53.

“On the Consequences of Costly Litigation in the Model of Single Activity Accidents: Some New Results,” *Journal of Legal Studies*, June 1981, 269-291.

“On the Political Sustainability of Taxes,” with A. Schotter, *American Economic Review Papers and Proceedings*, May 1981, 278-282.

“Information and the Law: Evaluating Legal Restrictions on Competitive Contracts,” with A. Weiss, *American Economic Review Papers and Proceedings*, May 1981, 399-404.

“Redistributing Incomes: *Ex Ante* or *Ex Post*,” *Economic Inquiry*, April 1981, 333-349.

“On the Nonexistence of *Pareto Superior* Outlay Schedules,” with J. Panzar, *The Bell Journal of Economics*, Spring 1980, 351-354.

“The Role of Information in the Design of Public Policy Towards Externalities,” with R. D. Willig, *Journal of Public Economics*, December 1979, 271-299.

“On the Concept of Optimal Taxation in the Overlapping-Generations Model of Efficient Growth,” with E.S. Phelps, *Journal of Public Economics*, August 1979, 1-27.

“Products Liability in Markets With Heterogeneous Consumers,” *Journal of Legal Studies*, June 1979, 505-525.

“Costly Litigation and the Tort Law: Single Activity Accidents,” *Journal of Legal Studies*, June 1978, 243-261.

“On the Optimal Provision of Journals Qua Excludable Public Goods,” with R. D. Willig, *American Economic Review*, June 1978, 324-338.

“Distortionary Wage Differentials in a Two-Sector Growth Model: Some Theorems on Factor Earnings,” *International Economic Review*, June 1978, 321-333.

“On the Optimality of Public-Goods Pricing with Exclusion Devices,” with W.J. Baumol, *Kyklos*, Fasc. 1, 1977, 5-21.

“Public Good Properties in Reality: The Case of Scientific Journals,” with W.J. Baumol, *Proceedings of the ASIS Meetings*, San Francisco, October 1976.

“Merger Illusions and Externalities: A Note,” with A. Schotter, *Eastern Economic Review*, November 1976, 19-21.

“Distributive Justice and Optimal Taxation of Wages and Interest in a Growing Economy,” *Journal of Public Economics*, January 1976, 139-160.

“Linear Taxation of Wealth and Wages for Intragenerational Lifetime Justice: Some Steady-State Cases,” with E.S. Phelps, *American Economic Review*, September 1975, 660-673.

B. Books and Monographs

Proceedings of the Tenth Annual Telecommunications Policy Research Conference, editor with O. Gandy and P. Espinosa, ABLEX Publishers, 1983.

Obstacles to Trade and Competition, with L. Goldberg, OECD, Paris, 1993.

Predatory Pricing, with William Green, *et al.*, American Bar Association, Section of Antitrust Law, Monograph 22, 1996.

C. Book Chapters

“Coordinated Effects: Evolution of Practice and Theory,” with J. Jayaratne, chap. 21, in R.D. Blair and D.D. Sokol (eds.), *The Oxford Handbook of International Antitrust Economics*, Oxford U.P., 2015, 509-28.

“Coordinated Effects,” chap. 27, in *Issues in Competition Law and Policy*, vol. 2, American Bar Association, 2008, 1359-1384.

“Practical Rules for Pricing Access in Telecommunications,” with R. D. Willig, Chap. 6, in *Second-Generations Reforms in Infrastructure Services*, F. Besanes and R. D. Willig (eds.), Inter-American Development Bank, Washington, D.C., April 2002, 149-76.

“Sustainable Privatization of Latin American Infrastructure: The Role of Law and Regulatory Institutions,” with Evamaria Uribe, Chap. 1 in F. Basanes, E. Uribe, R. D. Willig (eds.), *Can Privatization Deliver? Infrastructure for Latin America*, The Johns Hopkins U. P. for Inter-American Development Bank, 1999, 9-32.

“Access and Bundling in High-Technology Markets,” with R. D. Willig, Chap. 6, in J. A. Eisenach and T. M. Leonard, (eds.), *Competition, Innovation, and the Microsoft Monopoly: The Role of Antitrust in the Digital Marketplace*, Kluwer Academic Press, 1999, 103-29.

“The Harmonization of Competition and Trade Law,” with E. Fox, Chap. 15 in L. Waverman, *et al.* (eds.), *Competition Policy in the Global Economy*, Routledge, 1997, 407-439.

“Transition to a Market Economy: Some Industrial Organization Issues,” with M. Iwanek, Chap. 7 in H. Kierzkowski, *et al.* (eds.), *Stabilization and Structural Adjustment in Poland*, Routledge, 1993, 133-170.

“Competition Policies for Natural Monopolies in a Developing Market Economy,” with Russell Pittman, *Butterworth's Trade and Finance in Central and Eastern Europe*, Butterworth Law Publishers Ltd., 1993, 78-88, Reprinted in *Journal for Shareholders* (published by the Russian Union of Shareholder), Moscow, January 1993, 33-36; *Versenyfelugyeleti Ertesito* (Bulletin of Competition Supervision), Budapest, vol. 3, no. 1-2, January 1993, 30-41; *Narodni Hospodarstvi* (National Economy), Prague; *ICE: Revista de Economia*, No. 736 (December 1994) (in Spanish), 69-90.

“Antitrust: Source of Dynamic and Static Inefficiencies?” with W.J. Baumol, in T. Jorde and D. Teece (eds.), *Antitrust, Innovation, and Competitiveness*, Oxford University Press, 1992, 82-97. Reprinted in “The Journal of Reprints for Antitrust Law and Economics,” vol. 26, no. 1, 1996.

“Economic Foundations of Competition Policy: A Review of Recent Contributions,” in W. Comanor, *et al.*, *Competition Policy in Europe and North America: Economic Issues and Institutions, Fundamentals of Pure and Applied Economics* (Vol. 43), Harwood Academic Publishers, 1990, 7-42.

“The Department of Justice 1988 Guidelines for International Operations: An Economic Assessment,” with A.O. Sykes, in B. Hawk (ed.), *European/American Antitrust and Trade Laws*, Matthew Bender, 1989, 4.1-4.18.

“Predation, Monopolization, and Antitrust,” with G. Saloner, in R. Schmalensee and R.D. Willig (eds.), *Handbook of Industrial Organization*, vol. 1, North Holland, 1989, 538-596.

“Supervision Technology, Firm Structure, and Employees' Welfare,” in *Prices, Competition and Equilibrium*, M. Peston and R.E. Quandt (eds.), Philip Allan Publishers, Ltd., 1986, 142-163.

“Perspectives on Mergers and World Competition,” with R.D. Willig, in *Antitrust and Regulation*, R. Grieson (ed.), Lexington Books, 1986, 201-218.

“Transnational Antitrust and Economics,” in *Antitrust and Trade Policies in International Trade*, B. Hawk (ed.), Matthew Bender, 1985, 233-248.

“Pricing of Interexchange Access: Some Thoughts on the Third Report and Order in FCC Docket No. 78-72,” in *Proceedings of the Eleventh Annual Telecommunications Policy Research Conference*, Vincent Mosco (ed.), ABLEX Publishers, 1984, 145-161.

“Non-Price Anticompetitive Behavior by Dominant Firms Toward the Producers of Complementary Products,” with A.O. Sykes and R.D. Willig, in *Antitrust and Regulation: Essays in Memory of John McGowan*, F. Fisher (ed.), MIT Press, 1985, 315-330.

“Local Telephone Pricing in a Competitive Environment,” with R.D. Willig, in *Regulating New Telecommunication Networks*, E. Noam (ed.), Harcourt Brace Jovanovich, 1983, 267-289.

“An Economic Definition of Predatory Product Innovation,” with R.D. Willig, in *Strategy, Predation and Antitrust Analysis*, S. Salop (ed.), Federal Trade Commission, 1981, 301-396.

“Marginal Cost,” in *Encyclopedia of Economics*, D. Greenwald (ed.), McGraw-Hill, 2nd ed. 1994, 627-630.

“Understanding Economic Justice: Some Recent Development in Pure and Applied Welfare Economics,” in *Economic Perspectives*, M. Ballabon (ed.) Harwood Academic Publishers, vol. 1, 1979, 51-72.

“Problems of Political Equilibrium in the Soviet Proposals for a European Security Conference,” in *Columbia Essays in International Affairs*, Andrew W. Cordier (ed.) Columbia University Press, New York, 1971, 1951-197

D. Other Publications

“Intellectual Ventures v. Capital One: Can Antitrust Law and Economics Get Us Past the Trolls?” with Michelle Miller, *Competition Policy International* (forthcoming 2015)

“Implementing the FRAND Commitment,” with Allan Shampine, *Antitrust Source*, October 2014, available at http://www.americanbar.org/content/dam/aba/publishing/antitrust_source/oct14_full_source.authcheckdam.pdf

“Economics and Competition Policy: A Two-sided Market?” with Jith Jayaratne, *Antitrust Magazine*, vol. 27, No. 1, Fall 2012, pp. 78-80.

“Editorial: Thinking about coordinated effects,” with Jith Jayaratne, *Concurrences 3-2012*, September 2012.

“The 2010 Horizontal Merger Guidelines: A Static Compass in a Dynamic World,” with Jay Ezrielev, *Antitrust Source*, October 2010, available at www.antitrustsource.com.

“The Economics of Price Discrimination,” with Doug Fontaine and Greg Shaffer, in *The Economics of the Internet, The Vodafone Policy Paper Series*, No. 11, April 11, 2010, 27-51.

“How Loyalty Discounts Can Perversely Discourage Discounting: Comment,” with Assaf Eilat, *et al.*, *The CPI Antitrust Journal*, April 2010 (1).

“Economic Analysis in Antitrust Class Certification: *Hydrogen Peroxide*,” with Paul Godek, *Antitrust Magazine*, vol. 24, No. 1, Fall 2009, pp. 62-65.

“Comments on Evans & Schmalensee’s ‘The Industrial Organization of Markets with Two-Sided Platforms.’” *Competition Policy International*, vol. 3(1), Spring 2007, 181-90.

“Safer Than A Known Way? A Critique of the FTC’s Report on Competition and Patent Law and Policy,” with I. Simmons and D. A. Applebaum, *Antitrust Magazine*, Spring 2004, 39-43.

"Predatory Pricing," in Peter Newman (ed.), *The New Palgrave Dictionary of Economics and the Law*, Grove Dictionaries, New York, 1999. Revised in *The New Palgrave Dictionary of Economics, 2nd edition*, S. Durlauf and L. Blume (editors) (forthcoming 2007).

Book review of L. Philips, *Competition Policy: A Game Theoretic Perspective*, reviewed in *Journal of Economic Literature*, vol. 35, No.3, September 1997, 1408-9.

"The Role of Efficiencies in Merger Assessment: The 1997 Guidelines," *Antitrust Report*, September 1997, 10-17.

"Bingaman's Antitrust Era," *Regulation*, vol. 20, No. 2, Spring 1997, 21-26.

"Competition Policy for High-Technology Industries," *International Business Lawyer*, vol. 24, No. 10, November 1996, 479-82.

"Internationalizing Competition Law to Limit Parochial State and Private Action: Moving Towards the Vision of World Welfare," with E.M. Fox, *International Business Lawyer*, vol. 24, No. 10, November 1996, 458-62.

"Economists' View: The Department of Justice Draft for the Licensing and Acquisition of Intellectual Property," *Antitrust*, vol. 9, No. 2, Spring 1995, 29-36.

"Competition Policy During Transformation to a Centrally Planned Economy: A Comment," with R.W. Pittman, in B. Hawk (ed.), *1992 Fordham Corporate Law Institute*, 533-38.

"Poland: The First 1,000 Days and Beyond," *Economic Times*, vol. 3, no. 9, October 1992, 6-7.

"Interview: Janusz A. Ordovery: A Merger of Standards? The 1992 Merger Guidelines," *Antitrust*, vol. 6, no. 3, Summer 1992, 12-16.

"Interview: U.S. Justice Department's New Chief Economist: Janusz A. Ordovery," *International Merger Law*, no. 14, October 1991.

"Poland: Economy in Transition," *Business Economics*, vol. 26, no. 1, January 1991, 25-30.

"Economic Analysis of Section 337: Protectionism versus Protection of Intellectual Property," with R.D. Willig, in *Technology, Trade and World Competition*, JEIDA Conference Proceedings, Washington, D.C., 1990, 199-232.

"Eastern Europe Needs Antitrust Now," with E. Fox, *New York Law Journal*, November 23, 1990, 1-4.

"Understanding Econometric Methods of Market Definition," with D. Wall, *Antitrust*, vol. 3, no. 3, Summer 1989, 20-25.

"Proving Entry Barriers: A Practical Guide to Economics of Entry," with D. Wall, *Antitrust*, vol. 2, no. 2, Winter 1988, 12-17.

"Proving Predation After Monfort and Matsushita: What the New 'New Learning' has to Offer," with D. Wall, *Antitrust*, vol. 1, no. 3, Summer 1987, 5-11.

"The Costs of the Tort System," with A. Schotter, Economic Policy Paper No. PP-42, New York University, March 1986. Reprinted in *Congressional Record*, U.S. Government Printing Office, Washington, D.C., 1987.

"An Economic Definition of Predation: Pricing and Product Innovation," with R.D. Willig, Report for the Federal Trade Commission, October 1982, 131 pp.

"Market Power and Market Definition," with R.D. Willig, Memorandum for ABA Section 7 Clayton Act Committee, Project on Revising the Merger Guidelines, May 1981.

“Herfindahl Concentration Index,” with R.D. Willig, Memorandum for ABA Section 7 Clayton Act Committee, Project on Revising the Merger Guidelines, March 1981.

“Public Interest Pricing of Scientific and Technical Information,” Report for the Department of Commerce Technical Advisory Board, September 1979.

“Economics of Property Rights as Applied to Computer Software and Databases,” with Y.M. Braunstein, D.M. Fischer, W.J. Baumol, prepared for the National Commission on New Technological Uses of Copyrighted Works, June 1977, 140 pp. Reprinted in part in *Technology and Copyright*, R.H. Dreyfuss (ed.), Lemond Publications, 1978.

Book review of O. Morgenstern and G.L. Thompson, *Economic Theory of Expanding and Contracting Economies*, reviewed in *Southern Economic Journal*, September 1978.

“Manual of Pricing and Cost Determination for Organizations Engaged in Dissemination of Knowledge,” with W.J. Baumol, Y.M. Braunstein, D.M. Fischer, prepared for the Division of Science Information, NSF April 1977, 150 pp.

UNPUBLISHED PAPERS

“Activating *Actavis* with a More Complete Model,” with Michael G. Baumann, John P. Bigelow, Barry C. Harris, Kevin M. Murphy, Robert D. Willig, and Matthew B. Wright, Revised version forthcoming in *Antitrust*, January 28, 2014

“Exclusionary Discounts,” with Greg Shaffer, August 2006.

“Regulation of Credit Card Interchange Fees and Incentives for Network Investments,” with Y. Wang, Competition Policy Associates WP, Washington D.C. September 2005.

“Economics, Antitrust and the Motion Picture Industry,” C.V. Starr Center Policy Paper, July 1983.

“On Bargaining, Settling, and Litigating: A Problem in Multiperiod Games With Imperfect Information,” with A. Rubinstein, C.V. Starr Working Paper, December 1982.

“Supervision and Social Welfare: An Expository Example,” C.V. Starr Center Working Paper, January 1982.

“Should We Take Rights Seriously: Economic Analysis of the Family Education Rights Act,” with M. Manove, November 1977.

“An Echo or a Choice: Product Variety Under Monopolistic Competition,” with A. Weiss; presented at the Bell Laboratories Conference on Market Structures, February 1977.

GRANTS RECEIVED

Regulation and Policy Analysis Program, National Science Foundation, Collaborative Research on Antitrust Policy, Principal Investigator, July 15, 1985 - December 31, 1986.

Regulation of Economic Activity Program, National Science Foundation, Microeconomic Analysis of Antitrust Policy, Principal Investigator, April 1, 1983 - March 31, 1984.

Economics Division of the National Science Foundation, “Political Economy of Taxation,” Principal Investigator, Summer 1982.

Sloan Workshop in Applied Microeconomics (coordinator), with W.J. Baumol (Principal Coordinator), September 1977 - August 1982.

Economics Division of the National Science Foundation, “Collaborative Research on the Theory of Optimal Taxation and Tax Reform,” July 1979 to September 1980, with E.S. Phelps.

Division of Science Information of the National Science Foundation for Research on “Scale Economies and Public Goods Properties of Information,” W.J. Baumol, Y.M. Braunstein, M.I. Nadiri, Fall 1974 to Fall 1977.

National Science Foundation Institutional Grant to New York University for Research on Taxation and Distribution of Income, Summer 1974.

Expert Testimony of Dr. Janusz A. Ordover 2006-2015

CLIENT	MATTER NAME
NCAA	<i>In Re: NCAA I-A Walk-On Football Players Litigation</i> , U.S. Dist. Court, Western District of Washington at Seattle, Master File No. C-04-1254-C (deposition testimony in 2005 and 2006) [D][C]
Canadian Lumber Trade Alliance; Norsk Hydro Canada, Inc.; and Canadian Wheat Board	<i>Canadian Lumber Trade Alliance, et al. v. United States, et al. and Coalition for Fair Lumber Imports Executive Committee, et al.</i> Consolidated Court No. 05-00324 (U.S. Court of International Trade) (deposition and trial testimony) [P]
Medpointe Inc.	<i>Jame Fine Chemicals, Inc. v. Hi-Tech Pharma Co., Inc., Medpointe Inc.</i> , U.S. Dist. Court, Dist. of New Jersey, Civ. Action No. 00-3545 (AEI) (deposition testimony) [D]
NCAA	<i>Jason White, et al. v. NCAA</i> , U.S. Dist. Court, Central District of California, No. CV06-0999 RKG (MANx) (deposition testimony) [D][C]
Kemira Chemicals, Inc., and Kemira OYJ	<i>In Re: Hydrogen Peroxide Antitrust Litigation</i> , U.S. Dist. Court, Eastern District of Pennsylvania, Civ. Action No. 05-DV-666 (MDL No.:1682) (deposition testimony) [D][C]
Tyco International	<i>Rochester Medical Corp. v. C.R. Bard International et al.</i> , U.S. Dist. Court, E.D. of Texas (Texarkana Div.), No. 504-CV-060 (deposition testimony) [D]
Covidien (f/k/a Tyco Healthcare)	<i>Natchitoches Parish Hospital et al. v. Tyco International, Ltd. et al.</i> , U.S. Dist. Court, District of Massachusetts, Civ. Action No. 05-12024 PBS (deposition testimony twice, court hearing, jury trial testimony) [D][C]
Sound Exchange, Inc.	<i>In the Matter of Adjustment of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services</i> , Docket No. 20006-1 CRB DSTR, Copyright Royalty Board, Library of Congress, Washington, D.C. (deposition testimony, hearing testimony)
Tyco Health Care Group L.P.	<i>Allied Orthopedic Appliances, Inc. v. Tyco Health Care Group L.P. et al.</i> , U.S. Dist. Court, Central District of California (Western Div.), CV-05-6419 MRP (AJWx) (deposition testimony twice) [P][C]
Wakefern Food Corp.	<i>Delco LLC and Edward Decker v. Giant of Maryland LLC, Wakefern Food Corp., and Stop & Shop Supermarket Company LLC</i> , U.S. Dist. Court, District of New Jersey (Camden Vicinage), No. 07-CV-03522 (JBS-AMD) (deposition and PI hearing testimony) [D]

CLIENT	MATTER NAME
Woolworths Ltd	<i>Woolworths Ltd. and The Warehouse Group v. The Commerce Commission</i> , High Court of New Zealand, Wellington Registry, CIV 2007-485-1255 (hearing on the appeal from the determination of the NZ Commerce Commission) [P]
IGT	<i>IGT v. Alliance Gaming et al.</i> , U.S. Dist. Court, Dist. of Nevada, No. CV-S-04 (1676-RCJ-(RJJ)) (deposition testimony) [D]
American Honda Motor Co., Inc.	<i>In Re: New Motor Vehicle Canadian Export Antitrust Litigation</i> , MDL Docket No. 03-md-1532-P-H (All Cases) (deposition testimony) [D]
Dole Food Company, Inc.	<i>The European Commission Case Comp. 39.188 Bananas</i> , European Commission, Brussels, Belgium (Oral Hearing testimony)
Advanced Micro Devices, Inc.	<i>The European Commission Case Comp. 37.990 Intel</i> , European Commission, Brussels, Belgium (Oral Hearing testimony)
PVVW	<i>Appeal No. 25: PCCW versus Telecommunications Authority</i> , In the Telecommunications (Competition Provisions) Appeal Board, Hong Kong (Testimony) [P]
Exxon Mobil Corporation	<i>Michael Siegel et al., v. Shell Oil Co., et al.</i> , U.S. District Court, Northern District of Illinois, Eastern Div., No. 06 C 0035 (deposition testimony) [D][C]
The Commerce Commission	<i>The Commerce Commission v. Telecom Corp. of New Zealand Ltd.</i> , High Court of New Zealand, Auckland Registry, Civ. 2004-404-1333 ("hot tub" testimony) [P]
Tyco International, (US) Inc., and Tyco Healthcare Group, L.P.	<i>Daniels SharpSmart Inc., Plaintiff, v. Tyco International, (US) Inc., and Tyco Healthcare Group, L.P., Defendants</i> , U.S. District Court, Eastern District of Texas, Texarkana Division, No. 5:05-CV-169 (deposition testimony) [D]
CCC Holdings, Inc.	<i>FTC v. CCC Holdings, Inc., et al.</i> , U.S. District Court for the District of Columbia, CA 08-2043 (deposition and trial testimony) [D]
Hynix Semiconductor American Inc.	<i>Rambus Inc. v. Micron Technology, Inc. et al.</i> , Superior Court of the State of California, County of San Francisco, Case No. 04-431105 (deposition testimony, jury trial testimony) [D]
Bright House Networks, LLC, Cox Communications, Inc., and NewHouse Partnership	<i>In The Matter of Herring Broadcasting, Inc. d/b/a Wealth TV vs. Bright House Networks, LLC and Cox Communications, Inc.</i> , Federal Communications Commission, Washington, DC, File Nos. CSR-7709-P, 7822-P, 7829-P, 7907-P. (deposition testimony, FCC hearing testimony) [D]

CLIENT	MATTER NAME
Chemtura Corp.	<i>In the matter of Rubber Chemicals Antitrust Litigation: Bridgestone Americas Holdings, Inc., et al. v. Chemtura Corp., et al.</i> , U.S. District Court, Northern District of California, Individual Case No. C 06-5700-MJJ (testimony in an arbitration hearing) [D]
International Business Machines	<i>International Business Machines v. T3 Technologies, Inc.</i> , U.S. District Court, Southern District of New York, Civ. Action No. 06-cv-13565-LAK (deposition testimony) [P]
BP America Production Company	<i>In the matter of BP America Production Company v. Repsol YPF, S.A.</i> , Arbitration under the UNCITRAL Arbitration Rules (testimony in an arbitration hearing) [P]
Hynix Semiconductor, Inc.	<i>Tessera Technologies, Inc. v. Hynix Semiconductor, Inc.</i> , Case No. 106CV-07668, Sup. Ct. of the State of California, County of Santa Clara (deposition testimony) [D]
LG Philips LCD Co., Ltd., LG Philips LCD America, Inc., Samsung Electronics Co., Ltd., Sharp Corporation, Sharp Electronics Corporation, Toshiba Corporation, Matsushita Display Technology Co., Ltd., Hitachi Ltd., Hitachi Displays, Ltd., Hitachi America Ltd., Hitachi Electronic Devices (USA), Inc., Sanyo Epson Imaging Devices Corporation, NEC Corporation, NEC LCD Technologies, Ltd., NEC Electronics America, Inc., IDT International Ltd., AU Optronics, International Display Technology Co., Ltd., International Display Technology USA Inc., AU Optronics Corporation America, Chi Mei Optoelectronics, Chi Mei Optoelectronics USA, Inc., Chunghwa Picture Tubes Ltd., and Hannstar Display Corporation (Joint Defense Group)	<i>In Re: TFT-LCD (Flat Panel) Antitrust Litigation</i> , U.S. Dist. Court, N.D. of California, No. M 07-1827 SI, MDL No. 1827 (deposition testimony) [D] [C]

CLIENT	MATTER NAME
Enron Coal Services Ltd.	<i>Enron Coal Services Ltd. And English Welsh and Scottish Railway Ltd., In the Competition Appeal Tribunal (London, U.K.), Case No. 1106/5/7/08 (testimony in the Hearing) [P]</i>
Electronic Arts	<i>Geoffrey Pecover, et al. v. Electronic Arts, Case No. C08-02820VRW, US Dist. Court, N.D. of CA, San Francisco Div. (deposition testimony) [D][C]</i>
Volkswagen of America, Inc.	<i>Darren Berry, et al. v. Volkswagen of America, Inc., Case No. 0516-CV01171-01, Cir. Court of Jackson County, Missouri at Independence (deposition testimony) [D][C]</i>
Whole Foods Market	<i>Ekaterini Kottaras, et al. v. Whole Foods Market, U.S. Dist. Court, Dist. of Columbia, 1:08-cv-01832 - PLF (deposition testimony, Court hearing testimony) [D][C]</i>
NetFlix, Wal-Mart Stores, and WalMart.com	<i>In re Online DVD Rental Antitrust Litigation, U.S. Dist. Court, M:09-cv-2029 PJH (deposition testimony) [D][C]</i>
Volkswagen of America, Inc.	<i>John M. Dewey et al., v. Volkswagen Aktiengesellschaft, U.S. Dist. Court, Dist. of New Jersey, Civ. Action No. 07-2249 (FSH) (deposition testimony) [D]</i>
SoundExchange, Inc.	<i>In re Digital Performance Right in Sound Recordings and Ephemeral Recordings, Docket No. 2009-1, Copyright Royalty Board (Webcasting III) (deposition testimony, CRB testimony on behalf of the Sound Exchange)</i>
Volkswagen of America, Inc.	<i>In re Volkswagen and Audi Warranty Extension Litigation, U.S. District Court, District of Massachusetts, MDL Docket No. 1:07-md-01790 (deposition testimony) [D][C]</i>
Cephalon, Inc., Barr Pharmaceuticals, Inc., Mylan Laboratories, Inc., Teva Pharmaceutical Industries, Ltd. and Teva Pharmaceuticals USA, Inc., and Ranbaxy Laboratories, Ltd. and Ranbaxy Pharmaceuticals, Inc.	<i>King Drug Company of Florence, Inc., et al. v. Cephalon, Inc. et al., U.S. District Court, E.D. of Pennsylvania, No. 06-CV-1791-MSG (deposition testimony) [D][C]</i>
T-Mobile USA, Inc.	<i>T-Mobile USA, Inc. v. IDT Domestic Telecom, Inc., Superior Court of the State of Washington, No. 09-2-19475-1 (SEA) (deposition testimony) [P/D]</i>

CLIENT	MATTER NAME
Clear Channel Communications, Inc.	<i>In re Live Concert Antitrust Litigation</i> , U.S. District Court, Central District of California, Western Div., Case No.: 2:06-MDL-01745 SVW (VBKx) (deposition testimony) [D][C]
CEMEX, Inc., Lafarge North America Inc., Holcim, Vulcan Materials Company, Lehigh Hanson, Inc., Votorantim Cimentos North America, Titan American LLC (Joint Defense Group)	<i>In Re Florida Cement and Concrete Litigation</i> , U.S. District Court, S.D. of Fla., Miami Division, Master Docket No. 09-23493-Civ. (direct and indirect cases) (deposition testimony) [D][C]
Sandisk Corp.	<i>Sandisk Corp. v. Kingston Technology Co., Inc., et al.</i> , U.S. District Court, Western Dist. of Wisconsin, Civ. Action No. 10-cv-243 (deposition and trial testimony) [P/D]
SoundExchange	<i>In Re Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Services</i> , Docket No. 2011-1 CRB PSS/Satellite II, Copyright Royalty Board (deposition testimony on behalf of the Sound Exchange)
Guardian, Pilkington, AGC America Inc., and PPG Industries, Inc. (Joint Defense Group)	<i>Jeld-Wen, Inc. v. AGC America, Inc. et al.</i> , U.S. District Court, Western Dist. of Pennsylvania, Civ. Action No. 11-658 (deposition testimony) [D][C]
Apple Inc.	<i>Apple, Inc. v. Samsung Electronics Co. Ltd. and Samsung Electronics Co., Ltd. v. Apple, Inc.</i> , U.S. District Court, N.D. of CA., San Jose Div., Civ. Action No., 11-CV-01846 (deposition and jury trial testimony) [P/D]
Avery Dennison Corp.	<i>Avery Dennison Corp. v. 3M Innovative Properties Co. and 3M Company</i> , U.S. Dist. Court for the District of Minnesota, Civ. Action 11-cv-0824 MJD/FLN (deposition testimony) [P]
Warner Chilcott	<i>Mylan Pharmaceuticals, Inc., et al. v. Warner Chilcott Public Limited Company, et al.</i> , U.S. Dist. Court, Eastern District of Pennsylvania, Case No. 12-3824 (deposition testimony) [D][C]
BNSF Railway Corp.	<i>In re: Rail Freight Fuel Surcharge Antitrust Litigation</i> , U.S. Dist. Court, Dist. of Columbia, 1:07-mc-00489-PLF –JMF (deposition testimony) [D]
American Express Co., Inc.	<i>United States of America et al. v. American Express Co. Inc.</i> , U.S. Dist. Court, E.D.N.Y., 10-cv-04496 and <i>In re: American Express Anti-Steering Rules Antitrust Litigation</i> , E.D.N.Y., Master File No. 11-MD-2221 (deposition testimony) [D]
Apple, Inc.	<i>Apple, Inc. v. Samsung Electronics Co., et al.</i> , U.S. District Court, N.D. Cal (San Jose Div.), Case No. 12-cv-00630 (LHK) (deposition testimony) [P]

CLIENT	MATTER NAME
<p>Carpenter Company, Foamex Innovations, Inc., Hickory Springs Manufacturing Company, Flexible Foam Products, Inc., Future Foam, Inc., Leggett & Platt, Incorporated, Mohawk Industries, Inc., Woodbridge Foam Corporation, Woodbridge Foam Fabricating, Inc., and Woodbridge Sales & Engineering, Inc.</p>	<p><i>In Re: Polyurethane Foam Antitrust Litigation</i>, US District Court, Northern District of Ohio, Western Division, MDL 2196 (Direct) (deposition testimony, testimony at the class certification hearing) [D][C]</p>
<p>Carpenter Company, Foamex Innovations, Inc., Hickory Springs Manufacturing Company, Flexible Foam Products, Inc., Future Foam, Inc., Leggett & Platt, Incorporated, Mohawk Industries, Inc., Woodbridge Foam Corporation, Woodbridge Foam Fabricating, Inc., and Woodbridge Sales & Engineering, Inc.</p>	<p><i>In Re: Polyurethane Foam Antitrust Litigation</i>, US District Court, Northern District of Ohio, Western Division, MDL 2196 (Indirect) (deposition testimony, testimony at the class certification hearing) [D][C]</p>

CLIENT	MATTER NAME
<p>Sony Corp., Sony Optiarc Inc., Sony Optiarc America Inc., Sony NEC Optiarc Inc., Sony Electronics Inc., Sony Computer Entertainment America Inc., Hitachi Ltd., LG Electronics Inc., LG Electronics USA Inc., Hitachi-LG Data Storage Inc., Hitachi-LG Data Storage Korea Inc., Koninklijke Philips Electronics N.V., Lite-On It Corp. of Taiwan, Philips & Lite-On Digital Solutions Corp., Philips & Lite-On Digital Solutions USA Inc., Samsung Electronics Co. Ltd., Samsung Electronics America Inc., Toshiba Samsung Storage Technology Corp., Toshiba Corp., Toshiba America Information Systems Inc., Toshiba Samsung Storage Technology Corp. Korea, Benq Corp., Benq America Corp., TEAC America Inc., Quanta Storage Inc., Quanta Storage America Inc., Panasonic Corp. of America Inc. (JOINT DEFENSE GROUP)</p>	<p><i>In Re Optical Disk Drive Products Antitrust Litigation</i>, U.S.D.C. Northern District of California, San Francisco Division, MDL No. 3:10-MD-2143 VRW (deposition testimony) [D][C]</p>
<p>Energys Delaware Inc.</p>	<p><i>Energys Delaware Inc. v. Allergy Systems</i>, American Arbitration Association (San Francisco, CA), No. 7 4-198-Y -0 1772-12-JMLE (testimony at the Arbitration Tribunal)</p>
<p>Apple, Inc.</p>	<p><i>Apple v. Samsung</i>, Federal Court of Australia, N.S.W. Registry, March 2014 (trial testimony)[P]</p>
<p>UBS</p>	<p><i>CDS Information Market</i>, Case COMP/AT.39.745 (white paper, testimony at a Hearing) D</p>
<p>American Media, Inc.</p>	<p><i>Anderson News, L.L.C. and Lloyd Whitaker, as the Assignee under an Assignment for the Benefit of Creditors for Anderson Services, L.L.C. vs. American Media, INC ., Bauer Publishing Co., L.P., Curtis Circulation Company, Distribution Services, Inc., Hachette Filipacchi Media U.S., Inc., Hearst Communications, Inc., Hudson News Distributors, LLC, Canadian Services, Inc., Rodale, Inc., Time, Inc., and Time/Warner Retail Sales & Marketing, Inc.</i>, United States District Court, Southern District of New York, October 10, 2014 (Deposition Testimony) [D]</p>
<p>Guardian, Pilkington, AGC America inc., and PPG Industries, Inc. (Joint Defense Group)</p>	<p><i>Jeld-Wen, Inc. v. AGC America, Inc. et al.</i>, U.S. District Court, Western Dist. of Pennsylvania, Civ. Action No. 11-658 (deposition testimony-damages phase) [D][C]</p>

CLIENT	MATTER NAME
Office of the Commissioner of Baseball, National Hockey League, Comcast Corporation, DIRECTV, LLC, The Madison Square Garden Company, Yankees Entertainment & Sports Network, and related entities	<i>Thomas Laumann, Robert Silver, Garrett Traub, and David Dillon v. Notional Hockey League, et al.</i> , U.S. District Court, Southern District of New York, CA No. 12-1817 (SAS) ECF Case and related cases [D][C]
Packaging Corporation of America, et al.	<i>Kleen Products LLC, et al. v. Packaging Corporation of America, et al.</i> , U.S. District Court for the Northern Dist. Of Illinois, Eastern Division, Case No. 1:10-cv-05711 [D][C]
Hitachi,LTD., et al.	<i>Dell Inc. and Dell Products L.P., v. Hitachi, LTD., et al.</i> , U.S. District Court for the Northern Dist. Of California, San Francisco Division, Case No. 3:13-cv-02171-SC and various other indirect purchaser plaintiffs and optouts [D]

P=Plaintiff

D=Defendant

C=Class Action

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

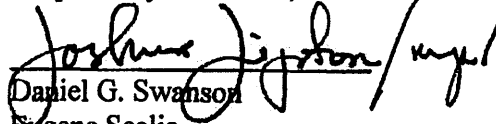
CORRECTION TO EXPERT REPORT OF JANUSZ A. ORDOVER

On January 26, 2015, the Nasdaq Stock Market Exchange LLC (“Nasdaq”) served upon all parties the Expert Report of Janusz A. Ordover, dated January 16, 2015 (“Ordover Report”). Nasdaq hereby provides a corrected Figure 1 (*see Exhibit A*) and encloses the backup expert file to the corrected Figure 1. The data used to compile Figure 1 is publicly available at the following website: <http://nasdaqtrader.com/trader.aspx?id=FullVolumeSummary>. For convenience, Nasdaq has also enclosed a document containing a screenshot of the data available on the aforementioned website as of December 31, 2014 (*see Exhibit B*).

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Respectfully submitted,


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Dated: February 23, 2015

CERTIFICATE OF SERVICE

I hereby certify that on February 23, 2015, I caused a copy of the foregoing NOTICE OF CORRECTION TO EXPERT REPORT OF JANUSZ ORDOVER to be served on the parties listed below via First Class Mail.

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Dated: February 23, 2015

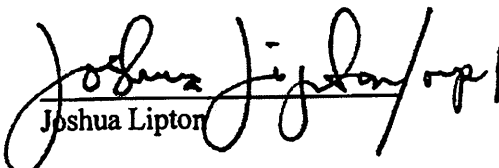

Joshua Lipton

EXHIBIT A

EXHIBIT A

Corrected Figure 1 of the Expert Report of Janusz A. Ordover

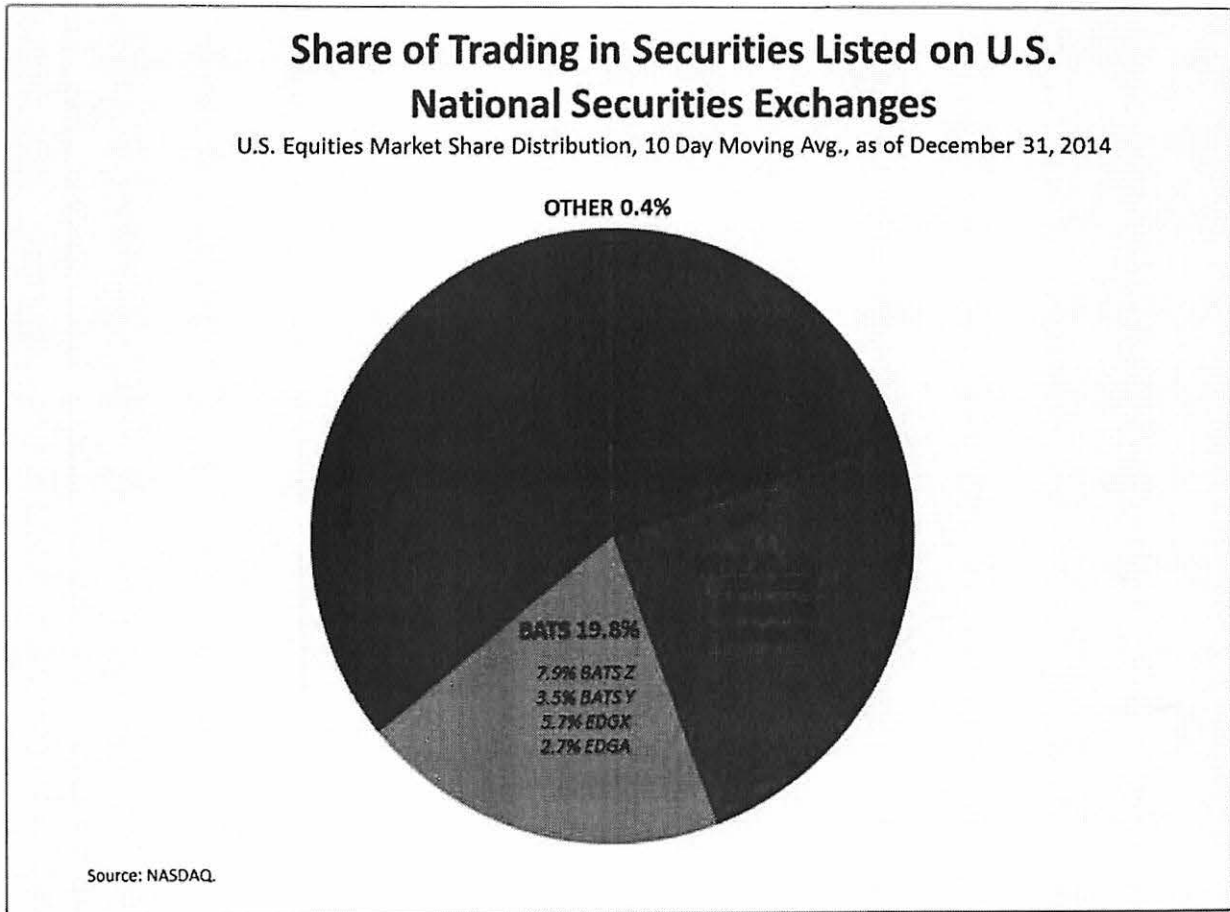


EXHIBIT B



Exhibit B

Home

U.S. Market

Trading Products

Market Data

Connectivity

Regulation

Market Statistics

News

Support

Product Login

U.S. Equities Market Volume Summary

Daily Volume

12/31/2014								
Volume	Trades	Dollar Volume	Self Default Units	Download				
Daily Volume								
Exchanges	Tape A	Tape A%	Tape B	Tape B%	Tape C	Tape C%	Total	Total%
NASDAQ	339,761,039	13.0%	132,917,387	11.5%	453,165,764	29.3%	925,844,190	17.5%
NYSE	669,485,309	25.7%	0	0.0%	0	0.0%	669,485,309	12.7%
ARCA	187,653,841	7.2%	233,717,137	20.3%	124,973,718	8.2%	548,344,696	10.3%
BATS Z	179,918,666	6.9%	109,328,394	9.5%	105,023,779	6.9%	394,270,638	7.5%
EDGX	142,775,687	5.5%	82,635,426	7.2%	116,188,377	7.7%	341,597,470	6.5%
BATS Y	93,984,065	3.6%	47,634,668	4.1%	52,485,934	3.5%	194,014,667	3.7%
EDGA	68,603,576	2.6%	40,639,065	3.5%	38,659,198	2.6%	148,301,839	2.8%
BX	49,201,893	1.9%	28,333,646	2.5%	26,873,401	1.8%	104,408,930	2.0%
PSX	15,561,844	0.6%	11,319,470	1.0%	9,596,117	0.6%	36,477,240	0.7%
AMEX	0	0.0%	17,454,182	1.5%	4,565,122	0.3%	22,019,314	0.4%
MWSE	5,588,931	0.2%	11,382,493	1.0%	2,040,944	0.1%	18,992,368	0.4%
NSX	0	0.0%	0	0.0%	0	0.0%	0	0.0%
CBOE	0	0.0%	0	0.0%	0	0.0%	0	0.0%
FINRA/TRF	Tape A	Tape A%	Tape B	Tape B%	Tape C	Tape C%	Total	Total%
FINRANASDAQ TRF™	758,400,904	29.0%	387,657,667	33.6%	517,022,842	34.0%	1,661,081,413	31.5%
FINRANYSE TRF™	80,970,878	3.1%	35,830,855	3.1%	62,772,354	3.5%	169,573,887	3.2%
ADF	18,929,848	0.7%	13,985,716	1.2%	14,905,718	1.0%	47,821,282	0.9%
Total	2,609,016,250	100.0%	1,152,735,925	100.0%	1,518,481,268	100.0%	5,280,233,443	100.0%

Data is updated every 1 minute and delayed at least 20 minutes. Last Update 12/31/2014 8:05:00 PM

10 Day Moving Average

Exchanges	Tape A	Tape A%	Tape B	Tape B%	Tape C	Tape C%	Total	Total%
NASDAQ	432,817,319	12.9%	151,147,408	11.3%	506,395,020	30.1%	1,090,359,746	17.1%
NYSE	852,847,767	25.5%	0	0.0%	0	0.0%	852,847,767	13.4%
ARCA	258,130,812	7.7%	278,378,958	20.6%	149,370,304	8.9%	683,881,074	10.7%
BATS Z	246,079,188	7.4%	130,018,943	9.7%	124,423,481	7.4%	500,519,622	7.9%
EDGX	181,306,147	4.8%	84,115,828	6.3%	117,680,628	7.0%	363,102,602	5.7%
BATS Y	112,720,631	3.4%	50,810,284	3.8%	58,344,467	3.3%	219,875,282	3.5%
EDGA	87,588,272	2.6%	42,373,042	3.2%	43,281,948	2.6%	173,233,262	2.7%
BX	59,341,074	1.8%	30,167,691	2.2%	29,680,533	1.8%	119,169,298	1.9%
PSX	22,149,246	0.7%	12,649,734	0.9%	11,796,764	0.7%	46,595,744	0.7%
AMEX	0	0.0%	30,768,668	2.3%	5,181,378	0.3%	35,960,046	0.6%
MWSE	8,520,327	0.3%	12,435,565	0.9%	4,118,384	0.2%	25,074,275	0.4%
NSX	0	0.0%	0	0.0%	0	0.0%	0	0.0%
CBOE	0	0.0%	0	0.0%	0	0.0%	0	0.0%
FINRA/TRF	Tape A	Tape A%	Tape B	Tape B%	Tape C	Tape C%	Total	Total%
FINRANASDAQ TRF™	973,208,794	28.1%	471,912,313	35.2%	556,870,185	33.0%	2,000,991,291	31.4%
FINRANYSE TRF™	108,288,848	3.2%	35,592,725	2.7%	62,885,248	3.7%	208,776,819	3.2%
ADF	23,292,053	0.7%	13,087,077	1.0%	15,267,581	0.9%	51,646,711	0.8%
Total	3,346,310,384	100.0%	1,341,487,236	100.0%	1,682,235,919	100.0%	6,370,033,539	

Source and Calculation Information:

- Current day's data is updated every 1 minute and is at least 20 minutes delayed.
- Sources: The UTP Trade Data Feed and the Consolidated Tape System (CTS).

1/8/2015

Full Market Share Summary

- 10 Day Moving Average represents the average of the daily volume for the past 10 trading days.

Note: Please refer to [UTP Vendor Alert 2009-010](#) for more information regarding about upcoming new UTP Participant Codes for BATS-Y, EDGA and EDGX.

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[Help](#)
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ATTACHMENT 2

Exhibits A–M

EXHIBIT

A

UNITED STATES OF AMERICA

Before the

SECURITIES AND EXCHANGE COMMISSION

In The Matter of the Application of

**SECURITIES INDUSTRY AND FINANCIAL
MARKETS ASSOCIATION**

Admin. Proc. File No. 3-15350

**For Review of Action Taken by Certain Self-
Regulatory Organizations**

**The Honorable Brenda P. Murray
Chief Administrative Law Judge**

**DECLARATION IN SUPPORT OF BRIEF OF
NASDAQ STOCK MARKET REGARDING
PROPOSED RULE CHANGE TO MODIFY RULE 7019**

REDACTED VERSION

I, Jeannie Merritt, on behalf of and in my capacity as a Vice President of NASDAQ OMX, do declare as follows:

1. I am a Vice President at NASDAQ OMX. I make this declaration, on behalf of and in my capacity as a Vice President of NASDAQ OMX, based upon my best knowledge and belief.

2. NASDAQ OMX is a financial services corporation that owns The Nasdaq Stock Market LLC ("Nasdaq"), which is a self-regulatory organization registered with the Securities and Exchange Commission (the "Commission") as a national securities exchange. The Securities Exchange Act of 1934 requires self-regulatory organizations to file changes to their rules with the Commission.

3. On September 7, 2010, Nasdaq filed with the Commission a proposed rule change to modify Nasdaq Rule 7019 (the "Rule Change"), which governs market data distribution fees. The Rule Change was aimed at harmonizing the distributor and direct access fees for depth products by including Level 2, also known as NQDS, under the current TotalView fee for NASDAQ-listed securities. The Rule Change did not affect user fees, but rather was aimed solely at the harmonization of distributor and direct access fees.

4. For example, prior to the Rule Change, distributors receiving the data feed containing the NASDAQ Level 2 entitlement and OpenView entitlement paid distributor fees for non-NASDAQ listed securities (under the OpenView entitlement) but did not pay distributor fees for NASDAQ-listed securities. By contrast, distributors receiving the NASDAQ-listed data through NASDAQ TotalView did pay a fee. Through the Rule Change, Nasdaq harmonized the fees across these products.

5. Similarly, prior to the Rule Change, customers who only accessed the Level 2 information through the Level 2 entitlement directly from Nasdaq were not charged a direct access fee, whereas customers who accessed TotalView and OpenView were charged a direct

access fee. The Rule Change harmonized these fees by applying a direct access fee to customers subscribing only to the Level 2 entitlement. Customers, however, would only be charged one direct access fee for NASDAQ-listed securities and one direct access fee for non-NASDAQ listed securities, paralleling the existing TotalView and OpenView direct access entitlements.

6. The Rule Change thus allowed Nasdaq to harmonize its distributor and direct access fees and ensure consistency across depth products.

7. I am aware that the Securities Industry and Financial Markets Association ("SIFMA") made a submission in this proceeding that attached declarations from the following nine SIFMA members: Bank of America; Bloomberg L.P.; Citigroup Global Markets Inc.; Credit Suisse Securities (USA) LLC; Goldman, Sachs & Co.; JP Morgan Chase & Co.; Liquidnet, Inc.; Charles Schwab & Co., Inc.; and Wells Fargo and Company.

8. The Nasdaq Finance Department generated a list of the distributor and direct access fees by utilizing the names of the nine SIFMA members as a basis for the list. Then I identified the following billing components for inclusion in the list of fees:

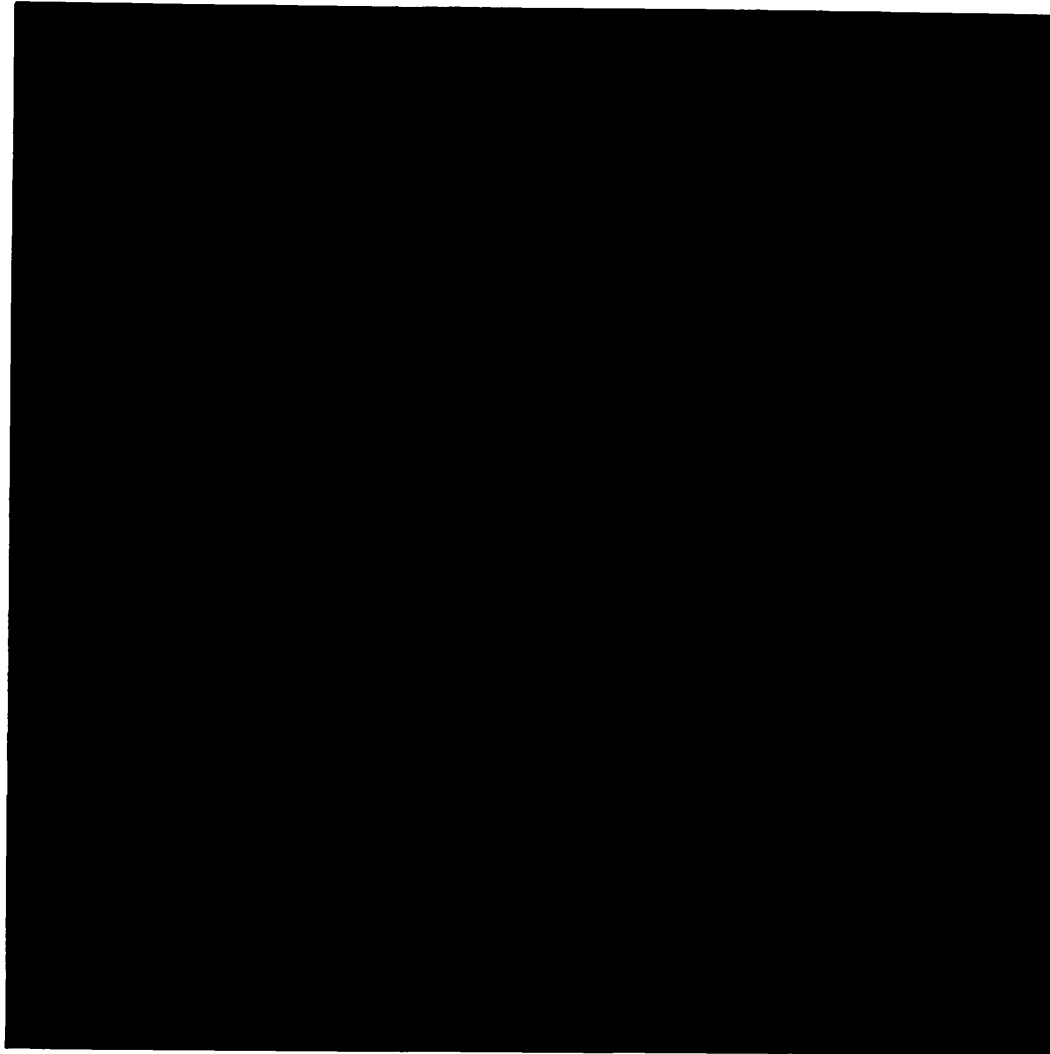
Billing Component Name	Billing Component Numbers
Non NASDAQ-listed Depth Direct Access	900561
Non NASDAQ-listed Depth External Distributor	900560
Non NASDAQ-listed Depth Internal Distributor	900559
NASDAQ-listed Depth Direct Access	900551
NASDAQ-listed Depth External Distributor	900035
NASDAQ-listed Depth Internal Distributor	900550

To the best of my ability, I reviewed the list provided by the Nasdaq Finance Department, and I culled the distributor and direct access fees from the list, and created a new list showing such fees paid by each of these SIFMA members before and after the Rule Change went into effect. Specifically, I have totaled the monthly fees paid by each of these SIFMA members in June 2010 (before the Rule Change went into effect) and in June 2011 (after the Rule Change went into effect).

9. To the best of my knowledge, the list shows that the monthly distributor and direct access fees paid by each of these nine SIFMA members in June 2011 (after the Rule Change went into effect) were the same as or lower than the distributor and direct access fees paid by each particular member in June 2010 (before the Rule Change went into effect).

10. In no case were the monthly distributor and direct access fees in excess of \$6,750 per month for any of these SIFMA members unless a particular firm had multiple accounts or held multiple agreements with Nasdaq. And, for any of these SIFMA members, in no case did the monthly distributor and direct access fees increase from June 2010 to June 2011.

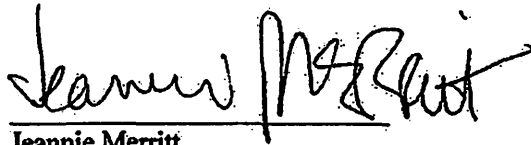
11. Specifically, the monthly distributor and direct access fees shown in the Nasdaq billing system and as provided by the Nasdaq Finance Department paid in June 2010 and June 2011 by each SIFMA member who submitted a declaration were as follows:



12. These fees did not increase for these customers because all nine of the SIFMA members submitting declarations were already subscribing to TotalView and OpenView products before implementation of the Rule Change. Accordingly, when Nasdaq harmonized the fees via the Rule Change at the level of the fees for the TotalView and OpenView products, the fees for these nine SIFMA members did not change.

I declare under penalty of perjury, on behalf of NASDAQ OMX, that the foregoing is, to the best of my knowledge, true and correct.

Executed on August 18, 2014

A handwritten signature in black ink, appearing to read "Jeannie Merritt", written over a horizontal line.

Jeannie Merritt
Vice President
NASDAQ OMX

EXHIBIT
B

Highly Confidential
- REDACTED -

NQ 539

EXHIBIT

C

Highly Confidential
- REDACTED -

NQ 508

EXHIBIT
D

JUSTICE NEWS

Department of Justice

Office of Public Affairs

FOR IMMEDIATE RELEASE

Monday, May 16, 2011

NASDAQ OMX Group Inc. and IntercontinentalExchange Inc. Abandon Their Proposed Acquisition of NYSE Euronext After Justice Department Threatens Lawsuit

WASHINGTON – The NASDAQ OMX Group Inc. and IntercontinentalExchange Inc. abandoned their joint bid to acquire NYSE Euronext after the Department of Justice informed the companies that it would file an antitrust lawsuit to block the deal. The department said that the acquisition would have substantially eliminated competition for corporate stock listing services, opening and closing stock auction services, off-exchange stock trade reporting services and real-time proprietary equity data products.

On April 1, 2011, NASDAQ joined with the IntercontinentalExchange to submit an unsolicited bid to acquire NYSE. At the time of its announcement, the proposed bid was worth approximately \$11.3 billion. If consummated, the deal would have given NASDAQ control over NYSE's stock listings business, stock trading venues and market data licensing operations. NYSE's futures businesses, located primarily in Europe, would have been sold to the IntercontinentalExchange.

"The companies' decision to abandon their bid for NYSE Euronext eliminates the competitive concerns developed during our investigation," said Christine Varney, Assistant Attorney General in charge of the Department of Justice's Antitrust Division. "The acquisition would have removed incentives for competitive pricing, high quality of service, and innovation in the listing, trading and data services these exchange operators provide to the investing public and to new and established companies that need access to U.S. stock markets."

NYSE and NASDAQ operate the major stock exchanges in the United States. NYSE owns the New York Stock Exchange, the oldest exchange in the United States and referred to by many simply as the "Big Board"; NYSE Arca, an all-electronic exchange; and NYSE Amex, which caters to small and mid-size companies. NASDAQ operates The NASDAQ Stock Market, NASDAQ OMX BX (formerly the Boston Stock Exchange) and NASDAQ OMX PSX (formerly the Philadelphia Stock Exchange). The market value of the companies and funds listed on NASDAQ and NYSE U.S. exchanges is approximately \$18 trillion, with more than \$14 trillion listed on NYSE exchanges and \$4 trillion on NASDAQ.

The department's investigation revealed that NYSE and NASDAQ are the only competitors in several businesses vital to the success of U.S. equity markets. NYSE and NASDAQ compete aggressively for listing customers as they are effectively the only companies providing corporate stock listing services in the

United States. In order for a company to sell its stock to investors on a public exchange in the United States, the company must first "list" or register its shares with an exchange. Once listed, the company's stock can be bought or sold on any stock exchange in the United States, off-exchange at certain broker-dealers and on licensed alternative trading systems. Listing stock exchanges act as "gatekeepers" to public equity markets, allowing only certain companies that meet rigorous standards to list and attract investment capital from the public.

NYSE and NASDAQ are also the only two providers of stock auction services that are used every day at the open and close of trading, as well as at certain other times of market imbalance, the department said. At most times, the process of determining a price for a stock occurs in a robust market, with numerous buyers and sellers actively negotiating prices. However, at certain times the market cannot determine a price in this way. For example, a long line of orders builds up every night waiting to execute at the moment the market opens. These orders are based on information revealed overnight, which is not reflected in the market price at the close of the previous day. Similarly, at the end of each trading day, major market participants place large orders to balance their portfolios, potentially creating large imbalances in order flows and distorting prices, the department said. Both NYSE and NASDAQ have developed special auctions to handle these unique order flows at the open and close of each trading day.

NYSE and NASDAQ provide trade reporting facilities for the reporting of stock trades occurring outside of a stock exchange and are currently the only two entities that compete to collect this data. This reporting business is vital for the proper dissemination of information about off-exchange trading, which today accounts for roughly 30 percent of all stock trading in the United States, the department said.

NASDAQ and NYSE are the largest two competitors providing certain real-time proprietary equity data products. These products reflect, for example, the prices and quotes on the several NASDAQ and NYSE stock exchanges as well as information and data collected by the NASDAQ and NYSE trade reporting facilities for trades occurring off the stock exchanges.

NYSE is a publicly traded Delaware corporation with its principal place of business located in New York, N.Y. NYSE was created by the merger between NYSE Group Inc. (NYSE Group) and Euronext N.V. in 2007. In 2010, NYSE earned more than \$3 billion in revenues from sales within the United States.

NASDAQ is a publicly traded Delaware corporation with its principal place of business also located in New York, N.Y. In 2010, NASDAQ earned more than \$2.5 billion in revenues from sales to customers located in the United States.

IntercontinentalExchange is a publicly traded Delaware corporation with its principal place of business located in Atlanta. IntercontinentalExchange operates exchanges, over-the-counter markets and clearing houses to support derivatives trading and settlement. In 2010, IntercontinentalExchange earned \$609 million in revenues within the United States.

11-622 Resolves Antitrust Concerns and Preserves Competition Between Stock Exchanges Antitrust Division
in the United States

Updated September 15, 2014

EXHIBIT

E

— PARTICIPANTS

Corporate Participants

Lee Shavel – Chief Financial Officer & EVP-Corporate Strategy, The NASDAQ OMX Group, Inc.

— MANAGEMENT DISCUSSION SECTION

Unverified Participant

Our next presenter is NASDAQ OMX. NASDAQ OMX Group owns and operates 24 markets, three clearing houses and five central securities depositories spanning six continents, making us the world's largest exchange company.

With us today is Lee Shavel, NASDAQ's Chief Financial Officer and Executive Vice President [indiscernible] (00:18).

Lee Shavel, Chief Financial Officer & EVP-Corporate Strategy

I'm delighted to host this conference with Morgan Stanley. Great to see the extraordinary diversity of companies and sectors that we have here, and frankly, I think it's pretty cool, various technologies that our companies are introducing around the world, and if you sit through a couple of these presentations, it's really amazing when companies are talking about manipulating matter at the molecular level and using lasers for new applications. It's pretty inspiring, and we're delighted to be the listing venue that sponsors those innovators.

So, my job here today, however, is to talk about the NASDAQ OMX, which has been an innovator in its own way since the advent of electronic trading, and as we have continued to take advantage of using technology to serve not only [audio gap] (01:15 – 01:27) traders, but also listed companies and really capital markets participants around the globe.

What I'd like to start off with is to make certain that everyone understands what [indiscernible] (01:42) the character of our business is, first of all, that we believe that we're unique amongst exchanges in terms of the dominant contribution of recurring revenues to our business model, where we have approximately 73% of our revenues that come from subscription and recurring levels – revenues. And this provides, as I'll show in some of the following pages, really superior resiliency of our revenue profitability and cash flow and superior visibility to our model.

Secondly, we also have a very high level of profitability driven by an exceptionally intensive profitability focus for the business that has always been here. I have a product profitability model that was put in place before I arrived, where we can look at some product segments. I think we have over 150 various products that we evaluate profitability on. And we are constantly looking for ways to improve the overall margin levels for individual products and businesses and it's managed very rigorously.

Thirdly, we have a very attractive level of operating leverage, particularly in our transaction businesses, where our incremental margins are easily 90% plus. And we utilize scalable technology in as many of our businesses as possible to enhance that operating leverage.

And then finally, we have a relatively moderate level of capital intensity. We have, other than the clearinghouse, a relatively low level of capital that we are required to maintain in the business

which enables us to generate substantial cash flow. As an example of that, we generated a 9% yield on our prior-year free cash flow, which I think compares very favorably to our competitors.

Now, moving to the right, as we think about working off of this model, where do we believe growth is likely to be generated? Firstly, and from a scale standpoint, we believe that our subscription revenues have exhibited very steady growth. In the third quarter, we had organic growth of 6% in those businesses. And we had organic growth in all three of those, in our Information Services business, in our Global Technology Services business, as well as in our Listing business. So, we really feel that we are in a very strong position in those businesses.

Moving onto the trading businesses, here what we are very excited about is the fact that two-thirds of our trading revenues come from derivatives and fixed income categories, where we see strong secular growth trends. Overall, options trading has continued to grow in excess of the overall cash equities' trading level. And we believe that we are still in the very early innings of the growth of fixed income as an electronic trading category.

And so that, combined with the substantial operating leverage in the business, gives us what we believe is an extremely attractive growth opportunity in those businesses even before we take into account the fact that in this current, very low volatility environment any improvement in volatility, which we think will naturally occur as the Federal Reserve begins to taper their quantitative easing program, will generate we believe potentially substantial increases in overall trading volumes.

And let me just talk briefly about our two recent acquisitions of Thomson Reuters. We believe that Thomson Reuters will give us substantial cost synergies as we've described of approximately \$35 million on an annual basis, as well as revenue opportunities where we now have the ability to distribute a number of the products from NASDAQ OMX, the legacy's business into the Thomson Reuters' customer base and some of the strong products from Thomson Reuters into the NASDAQ company base. We now have over 10,000 customers and it provides an absolutely superb distribution channel for us to continue to serve, not only for public companies but also for private companies.

And with eSpeed, this transaction enables us to leverage rising interest rates and particularly, a quantitative easing exit to increase the overall revenues and volume from on-the-run U.S. Treasury trading, but more importantly, allows us, even absent any phase-out of quantitative easing, an ability to increase revenues by increasing our market share through technology improvements, as well as a rollout of additional on-the-run and off-the-run type of products in the Treasury market.

And then finally, we have continued to generate very good growth, as well as returns on capital from our internal investment opportunities, and we'll talk about one in particular very relevant here in London because it's the base of where we have initiated our NLX futures exchange that is successfully competing with both Liffe and Eurex, and has shown a steady improvement in its market share of all European interest rate derivatives.

Now, before I get into the business, one question that we often get is, I think because of the breadth and diversity of our businesses, we're often asked to articulate our strategy. And simply put, our strategy is to leverage the technology and the relationships resources that we have to build profitable businesses and to deliver attractive returns to our shareholders. Now, let me go into a little bit more detail.

We really have two extraordinary assets. We have great customer relationships from our leading marketplaces and from our corporate issuer clients and we have very scalable and high-quality technology. And so, as we have started – when we started out, we, and in the interest of efficiency, looked for ways that we could leverage those by finding technology products that we could sell in addition to what we were already selling to our existing customers and looking for ways to find new customers for some of our existing technology.

And so, what you'll see on this slide is that our core business opportunities, and our core business tends to generate a substantial amount of capital that really is the source of our cash flow, in that core business we have very strong number one or number two market share in 97% of our revenue base. And we will continue to look to expand our Information Services, extend the Corporate Solutions products that we offer, as well as increase the Access Services businesses that we provide.

And then outside of the core businesses, attached to that, as part of the business, is our internal investment where we have imposed a very strict return-on-invested-capital discipline that has enabled the businesses to come to us with opportunities to leverage our existing technology and allow us to put that capital that we're generating into the business. And we've been able to develop new exchange formats such as BX Options. We've been able to find new customer base as we have with insider sales where we have initiated a telemarketing-based sales force to sell many of our corporate solutions to smaller and private companies. We've also developed information businesses like our index weightings and components business, and NLX, which we've talked about.

And this is where we've been able to bring those ideas and generate growth for the business overall. And I'm very proud to say that when we've looked over the past three years at all of the investments that we've made in the sector, we've generated – including both the unsuccessful and the successful investments, we've generated over a 25% return on invested capital from this activity, which certainly we think compares well to our cost of capital and other opportunities.

And then finally, as we've talked about, with both the Thomson Reuters acquisition and eSpeed, we do look opportunistically at acquisitions, but we have a very strict criteria for – three criteria for those acquisitions. They have to leverage our capabilities in some fashion. We have to be able to improve their business in some fashion primarily through cost reductions. They have to be accretive within one year, and they have to generate an attractive return on invested capital. And we think we have a very strong track record. And we'll talk about our two most recent acquisitions and how they are performing so far.

Our longer-term objective from this strategy is to become an increasingly deeply embedded technology provider to the global capital markets and the securities industry, which we think is a very attractive place to be. We certainly think that capital markets are going to continue to exist for many years to come and will increasingly be technology-driven. So, hopefully, that gives you some insight on our strategy.

Now, in terms of our diversified mix of revenues, this is probably the best illustration that shows in the circle outlined by the blue line around it, this represents the over 70% of our recurring revenues. Most of our peers receive most of their revenues through variable transaction-based revenues. Now, we love the 70% recurring revenues in our Information Services, Technology Solutions, Listings and the Access and Broker Services portion of Market Services, delivers very steady predictable growth. It has only modest cyclicalities. There is an element of cyclicalities to varying degrees within these businesses, but it also gives us very high revenue visibility.

Now, the transaction side of our business we believe complements this stability because it has the highest incremental margins, whether it's the secular growth in derivatives, which we talked about in options as well as in our European derivatives business, or the special opportunity we have to grow within eSpeed or the 30% transaction revenues. This brings really a very positive opportunity to both margins and the bottom line.

And we believe that not only the long-term prospects for growth in this business as the capital markets both continue to recover and continue to expand as the global economy grows, but we also think there is a particular upside from this very low volatility environment driven by the very

accommodative monetary policy that we've experienced for the past several years coming out of this crisis that we do believe we will be returning to a more normalized volatility environment that will drive overall higher trading volumes.

So, that is the background. I'm going to move through the four basic segments, and this is a recent re-segmentation that we undertook earlier this year to provide greater clarity on each of our businesses. So, the first segment is our Information Services business, and this consists of both our Market Data and our Index business.

And we describe the Market Data business as the sensory apparatus for the modern trader. 70% of this revenue is proprietary Market Data, is derived from our leading U.S. and European marketplaces and our benchmark indices and is offered in a wide range of products, addressing various types of customer needs. A shrinking minority is related to NASDAQ's share of shared industry data plans like Level 1 quotes and OPRA options pricing data. And there are great opportunities for us to innovate. We have distinct and crucial data about NASDAQ marketplaces that is not interchangeable with other exchanges' market data. And thus, we have relatively strong pricing power.

Now, in the index and licensing and servicing revenues, this comes mainly from licensing our popular indices to exchange-traded funds and other exchange-traded products as well as derivative contracts. And we license, for instance, the NASDAQ 100, many of whom – the component companies are at this conference today and tomorrow, as well as the NASDAQ Composite.

Now, a large portion of the revenues come from the very popular QQQ ETF, however, a rising portion comes from other exchange-traded products, which license the other indices, like our recent acquisition of Mergent, which provides a Dividend Achievers Index that we've been able to successfully distribute more broadly. This business has very good top-line characteristics in both growth dimensions and return dimensions and certainly in margins as you can see, and we believe that we will continue to have great opportunities to innovate and create new index products and this is also an area where we have particularly strong pricing power.

Now, we provide supplementally some of the operating and driver data for these businesses. On the left, you can see the growth and the components of our proprietary data, where we have the strongest pricing power. And you can see on the lower left, where we have purposely been reducing our exposure to the shared tape plan revenues through the introduction of our NASDAQ Basic product, which enables us to achieve superior economics and deliver a product that has a very clear value to our broker/dealer clients. And on the right, we track of the overall number of exchange-traded products that license our indices and in the bottom, assets under management, and we expect continued growth from each of these.

Moving onto our second business, the one that we're probably most known for is our Market Services business. It's worth pointing out, this accounts for 42% of our revenues. It's not the largest sector and it consists of both transaction revenue associated with the marketplaces, as well as recurring revenues from broker and access services that provide connectivity to our markets. 20% of this revenue comes from derivatives and fixed income. In the U.S., that's mostly equity options. And in Europe, we offer a wide range of derivatives, focusing on the needs of our Nordic markets, as well as offering fixed income as a result of our recent acquisition of the eSpeed Treasury platform.

Now, we believe that secular growth will continue to drive growth in the derivatives and the fixed income franchise. In the U.S. options, due to the increasing adoption of equity options by equity traders and investors, it's been a very consistent and reliable trend that we expect to continue. And in Europe, we expect increased adoption, as well as new product opportunities, particularly through OTC clearing when clearing becomes mandatory in Europe in the next few years. And I'll talk in more detail about the eSpeed opportunity in a moment.

Now, minority of the transaction revenue comes from relatively mature cash equity trading. It's about 10% of our company-wide revenues on a global basis, and we'll certainly benefit from improved cyclical tailwinds like more volatile markets or more assets flowing into equity investments or if regulatory initiatives to bring more off-exchange trading back on to our [indiscernible] (17:18) markets are successful.

And then finally, the broker and access services component, this is more traditional connectivity to our electronic markets, as well as data center co-location services. Both of these main sources of revenue have seen headwinds recently on the back of years of industry volume declines, but it has so far in 2013 been a reasonably stable business.

And we provide some additional operating metric. One that I would point out is, in the upper-left hand graph you can see the relationship between trading volumes and volatility as reflected in the upper-left hand with the average of VIX trend here over the past five years clearly having an impact on both U.S. cash equity trading and options trading, but we believe that this trend is likely to have run its course, particularly in the face of any quantitative easing, tapering here.

Moving to the third business – I'm sorry. I wanted to actually touch on one other element. Some encouraging things in terms of trading and in particular in equity trading sentiment, the first is that after virtually no positive and mostly negative outflows out of equity mutual funds, as you can see in the upper right, that we have seen – in the early part of 2013, as indicated by the blue lines above the line at the tail end, we've begun to actually see positive inflows into equity mutual funds. And more recently, particularly upon Chairman Bernanke's comments regarding tapering, rather dramatic outflows out of the fixed income side, which we certainly think in an improving economic environment particularly with rising rates, will naturally migrate towards the equity markets. And we think these are encouraging inflection points, but they both could become much more dramatic in the coming period as quantitative easing ends, rates rise, and investors begin to experience real losses in their fixed income portfolios.

And then secondly, on the bottom, as you can see, we are seeing building IPO activity. 2013 has been the best year since 2007, and we certainly think this is a great signal for enthusiasm in stocks, as well as overall risk appetite among investors.

Now, little bit more detail on the eSpeed acquisition, which we closed mid-year. Our rationale for eSpeed was very straightforward. There were two alpha opportunities and one beta opportunity. The first alpha opportunity was to take the existing technology at eSpeed and improve it in order to enable it to increase its market share. There are two primary providers of electronic on-the-run Treasury trading, BrokerTec, which controls approximately 60% of the market and eSpeed, which has been approximately 34%, 35%. We have begun to implement those technology changes. We're at the early stages, but we've already begun to add clients to the platform. And in fact, we've added four since we made the acquisition and we're expecting another four by the end of this year. And this is before we have fully migrated the data center to our Carteret data center which we believe will substantially improve the performance and decrease the latency of the platform that currently exists.

The second alpha opportunity is even more straightforward. And currently, the platform only trades on-the-run Treasuries. And we have the ability to expand that product set into T-bills, TIPS, and potentially repos. And we will expect to begin to roll out those products in the first quarter of 2014. Now, you may ask, well, why didn't the prior owner do this? And the answer is very simple is that they had a conflict. They ran a voice brokerage business for these products and did not want to cannibalize their existing business. We do not face that obstacle. And so, it's something that we can readily obtain. The technology already exists within the platform for us to do that. So, we're expecting that will be a meaningful growth opportunity for us from this platform.

And then, finally, the beta opportunity. And the beta opportunity is probably best described on the next page and on the graph on the lower right. So, what the graph on the lower right demonstrates or exhibits is, overall average daily volume in U.S. on-the-run Treasuries as a percentage of total Treasuries outstanding, and you can see fairly consistently, over the 2001 to 2008 timeframe, that this level of trading was approximately 10% to 11% of total outstanding volume. And then in 2008, it dropped pretty significantly, nearly half to the 4% to 6% range.

Now, the explanation of this is very straightforward. This is quantitative easing in action, and it reflects the Federal Reserve stepping in and buying \$80 billion a month of Treasury issuance and keeping it and holding on to it, keeping it out of the hands of traders. So, if you anticipate that quantitative easing ultimately will be phased out, we believe that that trading volume will now flow naturally into the hands of the primary dealers, and we'll see that overall trading activity go up. So, that's the beta opportunity. We can't predict when it will occur, but we're pretty confident that it will occur eventually. So, that really represents the eSpeed update.

Why don't I move now to our Technology Solutions business. This business consists of two sub-components. One is our Market Technology business and then our Corporate Solutions sub-segment. This is a \$500 million annual run-rate revenue business. And we expect that one of the primary earnings opportunities is the margin improvement initiative that will lead to significant profit improvement. Now, we're targeting over 20% returns over the next couple of years, and that will be driven primarily by efficiencies that we will be able to extract from the Thomson Reuters acquisition, as well as the maturation of a number of our other products outside of Thomson Reuters that should contribute meaningfully to profitability as well, as well as through the ability to cross-sell a number of our more profitable and high-margin Corporate Solutions business to this much broader customer base that has come about as a result of the Thomson Reuters acquisition.

Now, to touch on the Market Technology business, we sell our trading systems and other technology to other marketplaces and exchanges around the globe. We are the dominant industry leader in this space with over 70 other exchanges and other marketplaces running on our systems. We've grown our business by winning new business assignments. Most recently, for instance, we were selected by Borsa Istanbul for a multi-product exchange implementation for them, as well as Boerse Stuttgart who was expanding their derivatives business and chose our technology. We also grow this business by expanding the product set in our existing business by working off of, for instance, someone that we're providing cash equities to and expanding that into derivatives or into fixed income.

And in Corporate Solutions, as you know, we help the investor relations and communications departments within our listed companies to understand who owns and trades their stock. We help them with their research on other potential investors and host their IR websites. We also assist in their communication with Media & Investors, Directors Desk and other board products. With Thomson Reuters, we intend to become an even stronger industry leader and we have an integration plan that includes \$35 million in cost synergies that will drive this margin to the 20%-plus level. I'll skip over the metrics page, but here you'll see the success we've had in the growth of a number of our products and the composition of our revenues, as well as the technology backlog that we have, or the backlog we have in our Market Technology business.

And I'll touch on the update on the Thomson Reuters deal. The logic of the acquisition, as I mentioned, was to combine the number one industry leader of Thomson Reuters with our number three player position in our legacy business to improve the combined product set and create an even stronger industry leader while taking out significant cost savings. The deal closed in May was immediately accretive to earnings and is well ahead of the one-year timetable that we had set for earnings accretion.

Now, even though we have the earnings accretion, our primary goal is to create a good return on capital on the acquisition. Operationally, the planned multi-year integration is off to a fast start. Our

product, sales, and service teams have been integrated. Product development work has been done to separate the product sets to communicate together has been done and the vendor consolidation is under way. We should start to see cost synergies delivered in a meaningful way in 2014 with the majority of the planned \$35 million delivered in 2015.

And then, finally, our Listings business which tends not to receive a lot of attention but [ph] with (27:10) actually a number of very positive things to note. We have seen in 2013 an uptick in the overall number of listings, and we have also had a particularly strong showing in terms of IPO wins. As you can see on the bottom right, our year-to-date win rate is 57% on IPOs, which is ahead of the last three levels. You can also see that in terms of the number of U.S. IPOs at 156 were already higher than where we were for 2011 and 2012 and well on pace to surpass that level. So, we continue to see strong signs of recovery in the Listings business.

I talked about our GIFT initiatives, which outlines what we've invested in the past and the returns we've generated. What's probably most interesting is the success that we've had so far with our NLX investment. This is a London-based future exchange which offers futures tied to the most popular UK and EU rate benchmarks from the short to the long end of the yield curve.

And NLX brings a unique value proposition to the market. It first provides a full yield curve in a one-stop trading platform where previously traders had to use Deutsche Börse for the long end of the curve and Liffe now owned by ICE and NYSE previously for the short end. This is allowing a significant margin savings by bringing the benefits of portfolio margining to the entire euro yield curve, as well as introducing competition to an oligopolistic derivatives trading and clearing landscape.

We are very encouraged by the transaction that we've experienced, and as you can see in the graph on the right which shows our market share as a percentage of total European derivatives trading, we've seen the steadily building activity in much of the fall, and November has seen dramatic momentum, the market share in the high single-digits last week in terms of all euro rates futures markets and within the complex, products like Euribor and Sterling have hit much higher market share highs of 18% and 29% on single days. We're very excited to see how NLX performs in the remainder of 2013 as we measure whether or not it has the kind of growth trajectory that would make our targets for the program something around the 10% market share by yearend 2014 realistic.

Now, finally, just to wrap up, I just want to tie all of this together. We've talked about each of the different businesses and the diversity of those and the growth opportunities. What you see on this page, is on a quarterly basis, for the past eight quarters, remarkable stability in our revenues, stability in our operating expense, EBITDA and operating income and a very consistent EPS level. Now, we have delivered this despite a very challenging 2012 from a volume standpoint, where volumes were down between 10% and 20% depending upon the market that you look at. And it really speaks to, I think, one of the greatest misperceptions of NASDAQ is that we are primarily exposed to trading volatility and volume volatility in driving our revenue base. We have just incredible stability because of the diversification that we have within the business.

And you can see that on this page, the level of cash flow that we've generated, we have generated in total over the past four years plus 2013 year-to-date, \$2.3 billion. We have dedicated \$1.2 billion of that to share repurchases and also made acquisitions on a net base of about \$1.4 billion, so a balanced allocation of capital between both share repurchases and acquisitions.

And so with that, I think we've covered the business model, the strengths that we have, as well as the primary drivers of growth within the business, which we're very excited about. And I'd be delighted to take questions at this point.

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<A – Lee Shavel – The NASDAQ OMX Group, Inc.>: Yes, sir.

<Q>: [inaudible] (31:21 – 31:23) level of share buybacks this year versus history, say, more about your appetite for purchasing stock here or about the acquisition environment?

<A – Lee Shavel – The NASDAQ OMX Group, Inc.>: So, it's a fair question. And the lower level of share repurchases in 2013 was driven solely by the fact that when we made our acquisitions of Thomson Reuters and eSpeed, that we took on some debt. We increased our leverage to a debt-to-EBITDA ratio of approximately 3 times, and we committed to the rating agencies, that until we brought that leverage back down to our normalized range of 2.5 times, we would dedicate all of our cash flow to bringing that leverage down. And that was instrumental in their decision to maintain our ratings at both rating agencies.

So, at the point at which we are back to that normalized leverage ratio, then we will go through our standard evaluation of looking at the use of cash and capital for those share repurchases, and we evaluate what we think the potential return on invested capital is for those activities at that point, and weigh it relative to both internal investments within our business as well as externally what opportunities may or may not exist at that point.

Lee Shavel, Chief Financial Officer & EVP-Corporate Strategy

Okay. If there are no other questions, thank you very much for your time and attention today.

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EXHIBIT

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The NASDAQ OMX Group, Inc.

Company▲

NDAQ
Ticker▲Barclays Global Financial
Services Conference
Event Type▲Sep. 10, 2013
Date▲■ **PARTICIPANTS****Corporate Participants**

Lee Shavel – Chief Financial Officer & EVP-Corporate Strategy, The NASDAQ OMX Group, Inc.

Other Participants

Kenneth W. Hill – Analyst, Barclays Capital, Inc.

■ **MANAGEMENT DISCUSSION SECTION****Kenneth W. Hill, Analyst, Barclays Capital, Inc.**

Rounding out the exchange coverage here. So, we have CFO, Lee Shavel here from NASDAQ, also Ed Ditmire, IR. It's an interesting time for NASDAQ both from a broader market structure standpoint and from a company specific standpoint. So, we look forward to Lee's comments not only about kind of the issues in the broader market today, but more about the opportunities for NASDAQ as it evolves from more of a legacy cash equity business to more of a kind of non-transaction oriented business services company.

So, with that, I'll turn it over to Lee.

Lee Shavel, Chief Financial Officer & EVP-Corporate Strategy

So, thank you, Ken, and for your introduction and thank you all for joining us today. I'm delighted to be here as I talk about NASDAQ OMX's unique and evolving business as well as update you on a number of initiatives and topics, which I think are very relevant to our story. I'll take a moment here to show all the customary disclaimers regarding Reg FD, forward-looking statements, et cetera and this information is also available at our IR website ir.nasdaqomx.com.

So, NASDAQ OMX features, in our view, a very high quality financial model with a number of attractive growth opportunities over the near term. On the left side, we detail the characteristics of our business model. First NASDAQ, we believe is unique amongst exchanges with a dominant contribution from recurring revenues at 70% plus, something that gives investors superior resiliency and visibility and insulates them from volatile trading revenues. High profitability, the product of unusually intensive focus on product level margins as well as scalable technology. Operating leverage varies by business, but is extremely high in our transaction businesses where improvement in the business environment would bring material margin upside.

And finally, capital intensity is moderate, which when combined with our solid profitability yields to considerable cash flow generation, we currently trade at about a 10% yield on our prior year free cash flow. On the right side, specific growth opportunities that we anticipate in the near term, firstly, our recurring subscription revenues have exhibited steady growth, which we expect will continue. Secondly, our trading volumes, which have been stabilizing would still be best described as [ph] cyc (2:30) depressed and we'll benefit materially in both revenues and in particular margins with any meaningful recovery.

Our acquisition of the investor relations, public relations and multimedia businesses of Thomson Reuters gives us both an opportunity to harvest \$35 million in planned cost synergies, but also to

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capitalize on a stronger number one market position when combined with our legacy business to grow revenues. And our acquisition of eSpeed gives us both leverage to rising rates and a quantitative easing exit, but also an opportunity to expand its products set beyond the current on the run treasury trading and either or both would meaningfully grow the business.

And finally, NASDAQ has its highest ever level of new initiatives investment or what we refer to as our GIFT investments in 2013 as we look to build on the success of this new product incubator with projects like NLX, our London futures exchange. I want to spend a moment articulating our strategy so that everyone is clear on this point. We have a fundamental strategy of leveraging our technology and relationship resources to build profitable businesses and deliver attractive returns for our shareholders.

Another way of thinking about this is that we have two phenomenal assets. One is great customer relationships which arise from our leading marketplaces and our thousands of corporate issuer clients. And secondly, our scalable technology and leveraging these fully allows us to serve the investment community in many ways. Our objective is to become a deeply embedded growing and highly-profitable service provider to the global securities market. Tactically, what this translates into is that most of this comes through the organic growth in the evolution of our core businesses, some of it comes through more distinct organic initiatives, in particular, through our GIFT program, and lastly we consider M&A opportunistically.

Our business mix, pro forma for the eSpeed and Thomson Reuters acquisitions that closed in the second quarter is very unique among exchanges and that we're particular diversified and have an unusually high mix of recurring subscription type revenues versus peers that all received most of their revenues through variable transaction sources. We love the 70% recurring revenues in our information services, technology solutions, listings, and the access and broker services portion of market services, because it delivers steady, predictable growth with only modest cyclicality and the high revenue visibility gives us advantages, when it comes to planning our business and capital structure.

On the other hand, the transaction side of our business brings the highest incremental margins, and whether it's a possible cyclical rebound in relatively mature markets like U.S. equities, secular growth in derivatives or the special opportunity we have to grow with eSpeed, the 30% transaction revenues brings a lot of positive optionality.

Now, I'm going to spend some time detailing our four business segments. Of our four major segments, Information Services is the largest operating profit contributor to the company at 41%, consisting of market data and our index sub segments. Market data, which I think of as the sensory apparatus for the modern trader is made up mostly of proprietary market data derived from our leading U.S. and European market places and our benchmark indices, which are then offered in a wide range of products addressing various types of customers. A shrinking minority contribution is made up of NASDAQ share of shared industry data plans like Level 1 quotes or OPRA options pricing data.

Market data gives us great opportunities to innovate and develop new products and because the data is unique to NASDAQ in our markets, it's highly differentiated from competitor offerings and we enjoy relatively strong pricing power. Our index licensing and servicing revenues derived mainly from licensing our popular indices including the NASDAQ-100 and NASDAQ Composite to exchange traded funds, exchange traded products and derivative contracts, which are based on our indices.

A large portion of the revenues comes from the very popular QQQ ETF but a rising and very significant portion comes from exchange traded products, which license other indices such as the Dividend Achievers Index, which serves income equity investors. And in terms of growth, we expect both sub-segments to continue to be strong contributors.

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In passing, you'll note the strength of our proprietary data revenues and the strong growth story in the number of exchange traded products licensed to our proprietary indices as well as the growing assets under management in those products.

Moving to market services, this business consists of transaction revenue associated with our popular U.S. and European derivatives and cash equity exchanges as well as our recently acquired eSpeed fixed income trading platform. It also includes recurring revenues from broker and access services, which helps market participants connect to our marketplaces.

As you can see, NASDAQ OMX gets only a minority of its transaction revenue from relatively mature cash equity trading, which in 2012 pro forma for the Thomson and eSpeed acquisitions only made up 10% of our companywide revenues and we get 15% from our derivatives business. eSpeed, based on 2012 pro forma numbers would've delivered 4% of our total revenues.

Our derivatives business in the U.S. is mostly equity options where we've been a market share leader in multiply listed classes and in Europe we offer a wide variety of equity-linked fixed income and commodity derivatives largely focused on the needs of the Nordic markets. We see solid secular growth opportunities on both sides of our derivatives franchise in the U.S. options due to the increasing adoption of options by equity traders and investors. And in Europe where our unique Nordic products also have opportunities, in terms of increased adoption as well as new product opportunities such as over-the-counter clearing of Nordic-focused products when clearing of these instruments becomes mandatory in Europe in the next few years.

Our cash equities marketplaces are more mature, but both would benefit from improved cyclical tailwinds through either more volatile markets or in the U.S. if initiatives to bring more off-exchange trading back onto the LIT markets are successful. Broker and access services encompasses more traditional connectivity to our electronic markets, the sales of ports to brokers as well as data center co-location services, which largely serve algorithmic traders and liquidity providers or market makers. Both of these main sources of revenues have seen headwinds lately on the back of years of industry volume declines, but we're cautiously optimistic that these headwinds are stabilizing, along with market volumes.

On this page, I'd just like to highlight the headwind that falling volatility has had to transaction volumes and note that this trend seems to have largely run its course. And certainly with the events surrounding the anticipation of the Federal Reserve's tapering, we have begun to see spikes in volatility and that have clearly translated into increases in market volumes, which will certainly benefit, not only our U.S. cash equities markets, but of course, also our eSpeed volumes, which respond very directly to anticipated changes in Fed policy.

So moving to slide 10, our technology solutions segment, which consists of market technology and corporate solutions make up 26% of our revenues on a 2012 pro forma basis. And while its margins have been below our company average in the high single digits level, our margin improvement initiative should lead to outsized profit improvement over the next couple of years, we're targeting 20% plus for this business.

The market technology segment is where we sell our trading systems, and other technology to other marketplaces and exchanges around the world. We are a dominant industry leader in this space with over 60 exchanges and other marketplaces running our systems. We grow our business primarily by winning new business assignments, whether that is a new exchange deciding to adopt our systems or an existing customer adding new products or other functionality and deepening the relationship.

We recently won a significant bit of new business from the Istanbul exchange, a regional leader, which we're forming a strategic partnership with. In addition to the systems we sell to exchanges,

we also serve brokers and regulators in this segment through the SMARTS product, which provides analytics to help ensure trading meets regulatory requirements.

Corporate solutions is a business where we serve our issuers, in particular, with technology and services that help them in investor relations, media and public relations functions that are critical to publicly traded companies. We help investor relations departments understand who owns and trades their stock, help them with their research on potential investors, host their investor relations websites and assist in their communications with media and investors.

We also have products that assist the boards of these companies like Directors Desk, which allow board members to access confidential information's on iPads and other digital devices in a secured format. And we're very pleased to have recently acquired the investor relations, public relations and multimedia businesses of Thomson Reuters, a leader in the space. And over the next few years, we intend to become an even stronger industry leader, while also executing on an integration plan that will generate \$35 million in cost savings.

Here I would like to highlight, in particular, the strong growth of some of our most important corporate solution products, the investor relations desktop systems, Directors Desk users and press release publications, which are all seeing very strong organic growth year-over-year for the past two quarters as you can see in the bottom right. And I think this reflects clearly an improving environment among our corporate clients to purchase more tools and services from us, I think reflecting a more optimistic outlook within their own businesses.

So, moving to slide 12, and finally on listing services. Obviously, we are one of two players in the United States listing markets and we're the leader in the Nordics with altogether over 3,300 listings. The revenues in this business consist of annual listing fees and fees for new listings, and for when companies issue additional shares such as in an acquisition or as part of an employee stock compensation program.

We recently enjoyed an uptick in both revenues and the total number of listings as 2013 has had a strong showing thus far with dramatic improvement on both the number of new issues and a decline in de-listings which are usually a function of companies being acquired.

And I'd just like to highlight on this page as you can see, the uptick in the number of new listings that we've seen, which has helped us reverse a half decade decline in the number of listings and the relative stability in the win rate on IPOs that qualify for listing on both the NASDAQ and our major peers offerings. And we certainly think that this is also a reflection of continued flows of capital into equity mutual funds, which clearly benefits the new issue market and I think it contributes in a meaningful way to some of the strength that we've seen in the new issue marketplace.

On this slide we detail our GIFT initiatives program, which is a very specific way that NASDAQ invests in organic initiatives, taking inspiration from a venture capital fund and leveraging the new business ideas of our business teams. Successful examples of this three year old program in the past includes starting up additional exchanges like the BX Options exchanges or redirecting some of our products to new customers like Inside Sales, an effort to target privately held companies with our corporate solutions products.

We've enjoyed very healthy returns on capital in this program, about 25% return on invested capital for the past three years when measuring the profits of initiatives, which have succeeded and graduated from GIFT into our normal business lines and also including any of the unsuccessful investment programs that we've made over this period, where we've had the financial discipline to end them when they weren't meeting targets.

Building on the success of the program in 2013, we have \$50 million to \$60 million in expenses associated with GIFT, headlined by our London futures exchange NLX, which launched in the second quarter with a suite of European benchmark interest rate products, which offer full yield curve cross margining for the first time in Europe, leveraging the London Clearing House which European users have been accustomed to as the central counterparty for many years. And we've seen encouraging traction in certain instruments, in particular, sterling futures and we have had added to a solid roster of member firms through the summer. We're excited to see how NLX performs in the remainder of 2013 as we believe that the remainder of 2013 and the first part of 2014 will determine the successful growth trajectory that would make our targets for the program something around a 10% market share by the end of 2014 realistic.

I want to take a moment to update you on our two acquisitions; first the Thomson Reuters business acquisition. If you recall the logic of this acquisition was a unique opportunity to combine the number one industry leader with our strong number three position to create an even stronger industry leader, while at the same time realizing \$35 million of synergies as we eliminated overlapping product sets and move towards a streamlined but improved offering.

We closed this transaction at the end of May and have already announced that it was accretive to earnings immediately; well ahead of the one year timetable we set at the time of the announcement in December. While the early earnings accretion is a positive, our primary goal is to make certain that we generate a good return on capital for this acquisition. Operationally, the planned multiyear integration is off to a fast start. Product sales and service teams have been integrated, product development work to allow the separate product sets to communicate together has been done and vendor consolidation is underway. And while we have invested in this platform initially, we should start to see cost synergies delivered in a meaningful way in 2014 with the majority of the planned \$35 million delivered in 2015.

Next, the eSpeed acquisition, which we announced in April and closed at the end of June. If you recall, the rationale for this transaction was to take the eSpeed platform which is one of two electronic platforms currently splitting the On-The-Run Treasury market was to one add Alpha value by leveraging our technology and customer base to improve its competitiveness and market share, as well as successfully introduce more products. And two, to enjoy beta growth as the size of the U.S. treasury market continues to expand due to continued government deficits, as well as the likely profound increases in market turnover that should resolve as the Fed exits from quantitative easing.

Like the Thomson Reuters acquisition, eSpeed appears to be accretive to the earnings ahead of our original plan. We said recently we expect accretion in the second half of 2013 after originally targeting one year from closing. Thus far in terms of our plans to improve the business with Alpha, in the first few months of the ownership we've made significant progress addressing performance gaps versus its peer BrokerTec, which deploys NASDAQ technology.

We're about halfway through in an effort to close latency gaps and in particular to create more stable predictable latency across different volume conditions. And we're also working to move the systems to our Carteret data center and to begin introducing new products, both of which should happen in the first quarter. In the meantime on the Beta front, we're seeing industry volumes which are running well above prior year levels August saw 20% higher volumes and while early September month-to-date is running well ahead of the prior year as well and we would expect to enjoy significant market volume improvement if the Fed begins tapering quantitative easing, something which has received heightened speculation of late.

So moving to our cash flow, NASDAQ OMX has a strong record on free cash flow over the past two years. This has been a function of the organic growth of our business, investments in the new initiatives and the acquisitions that we've made with very strict discipline. While 2013 has seen a number of non-recurring items, for example, related to our acquisitions and heightened GIFT

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investment, this has an impact on our cash flows. These should be temporary and we would expect to see materially above the roughly \$100 million plus quarterly run rate of recent years, as we integrate our acquisitions and see our GIFT investments move out of early investment loss making positions. We put that cash flow to good use as you can see from 2009 to the second quarter of 2013, where we generated over \$2.1 billion of free cash flow after our deployment of that included \$1.3 billion for our share repurchase programs and dividends and roughly equal \$1.4 billion for acquisitions, including a number of smaller tuck-in acquisitions and the more significant Thomson Reuters and eSpeed acquisitions in 2013.

As part of our 2013 acquisitions, our gross debt to EBITDA ratio went from our mid twos, long-term target up to about three times. And we committed to direct our cash flows primarily towards deleveraging back to that target before restarting our share repurchase program, something we should accomplish within three to four quarters of the deal closings and so somewhere between the end of the first quarter of 2014 and the second quarter of 2014. At that point, we will enjoy the full flexibility in cash deployment that we've enjoyed in the past, including the opportunity to restart our buyback program, something that could be in large to reflect what should be higher cash flows including our profitable acquisitions.

So now that I finished running through our financial model, our strategy and our businesses; just to summarize, our revenues are primarily subscription-based recurring revenues. These revenues account now for over 70% of our revenue base, and have been steady growers for the company. Our strategy is to leverage our great customer relationships and scalable technology to build a portfolio of growing profitable and scalable businesses. We have an equities and derivatives business that stands to gain when trading volumes resume their growth trajectory, while our new fixed income trading business brings numerous growth opportunities. And while still early, we're proceeding on the integration and plans to generate value for shareholders in our two significant acquisitions eSpeed and Thomson Reuters.

We have strong free cash flow generation. We trade at a 10% free cash flow yield based on our last full year. And we're working to deleverage to our long-term target by midyear 2014 and again to be in a position to deploy capital to accelerate shareholder returns whether through resumption of buybacks or other deployment opportunities, such as organic initiatives or other opportunities.

Thanks for your time today and I think Ken has some polling, which we're looking forward to do with the audience and then I'll be happy to take any questions.

Kenneth W. Hill, Analyst, Barclays Capital, Inc.

Again, we're going to do the audience responses right now. We can poll those questions, so first question is up on the screen. It's been consistent all morning. If you're not a holder of NASDAQ or underweight the stock, what would cause you to change your mind? So improve volume macro trends, more attractive valuation, decreased headline risk, and more clarity, simplicity around the company strategy?

[Music] (22:38 – 22:51)

Okay so kind of spread across 37% of you all are looking for improved volume environment versus 40% a decrease in the headline risk, 17% more clarity around the strategy and then 7% more attractive valuation. I guess if you wanted to dive into that one, there's a number of industry topics to talk about, some NASDAQ specific over the past few months, I guess on the headline risk, if you wanted to chime in on that one.

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Lee Shavel, Chief Financial Officer & EVP-Corporate Strategy

Yep. So Ken I think the interesting thing is the balance between the improved volume and macro trends and probably the most positive, which I'm sure Ed will agree with me is that, number four is relatively low out of this because I think we wanted to make certain that investors have a clearer sense of what our strategy is and how we approach capital allocation and the growth of our businesses. So the fact that the focus is on improved volume and macro trends, which as I mentioned earlier I really think that if you step back from just the trading volumes and you look at what's happening from an economic standpoint, we continue to see much broader support for recovery in overall equity market volume activity. Certainly, we're seeing broader economic improvements in terms of lower unemployment, economic growth, and I think most importantly the consumer psychology is clearly shifting. As you've seen with the strength in auto sales as well as expansion in consumer, consumer borrowing, the mindset of the individual investor, we think is shifting to the positive. Housing prices are beginning to improve again, which will drive [ph] wealth effect (24:40) making folks I think more inclined to take on risk assets.

And we've seen that consistently in 2013 with the capital flows into equity mutual funds. But the biggest spur I think which we think will benefit us is as individual investors begin to recognize that the tapering of quantitative easing will clearly drive higher interest rates and they will expose them to negative returns in their portfolios. We saw a huge drop in fixed income funds in, I believe, it was May or June. And clearly in that environment equity products will improve.

And on number three, clearly the headline risk within the sector, clearly technology issues are something that all technology-oriented companies have to deal with. We have certainly work to make certain that we are addressing the technology issues on August 22, and we certainly believe that will be judged by our clients and market participants based upon how we're able to address that. We feel that they've been substantially addressed more broadly within the industry as a whole. We believe that the industry is clearly looking to take necessary steps to make the environment more resilient and more stable. We'll certainly bear our level of responsibility for improving that and making certain that we continue to work towards our goal of 100% reliability within the systems and the products that we operate. We're certainly not there yet, but we're working hard to get there. And we think that we will continue to be judged by our long-term success in delivering a very stable and reliable product to all of our customers.

Kenneth W. Hill, Analyst, Barclays Capital, Inc.

So, I guess, just on that last point though, clearly it is more of a headline risk now in the market and you talked about the 100% kind of availability of the systems. What do you think the biggest impediment is to getting to that level? And is it purely market structure or is it things internally that you guys are looking to simplify as well? I guess, what kind of discussions are you having at an industry level and a company level that helps you get to that level?

Lee Shavel, Chief Financial Officer & EVP-Corporate Strategy

Yeah, I think, Ken, the biggest obstacle is the existing complexity of our U.S. cash equity market structure. Given the number of connections within that system of various execution venues, and I think the competitive dynamics with which that environment has evolved within the Reg NMS context, it has created an environment that is inherently difficult to maintain consistency from a technology standpoint. And so I think what will come out of industry discussions, our efforts to standardize, to implement a compliance system that allows market participants and other exchange participants to have greater certainty in the types of situations that we'll have to deal with and to

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make certain that we are anticipating as broadly as possible what may happen so that we're prepared to address them quickly.

And I think that frankly the progress that we made since the Flash Crash has demonstrated our ability to recover rather than having to shut the markets down for much more extended period of time, we've been able to restart them on a faster basis. And, in fact, as we were dealing with the events of August 22, as we've described, the delay in restarting trading was not a technology issue, it was driven by the fact that we wanted to make certain that all of the market participants, the exchange, the member firms were ready for that restart. And that there were no surprises that it was fully tested. And so in order to achieve that goal, we obviously were extra cautious and making certain that everything was up and running and I think that was validated by the fact that we were able to reopen the market and close it normally. So I think those are the types of things that the industry as a whole will grapple with to reduce the incidents of these events and probably more importantly I don't think we will ever like to be able to eliminate them, but to make certain that the system is resilient enough to recover from it.

Kenneth W. Hill, Analyst, Barclays Capital, Inc.

Okay, great. We'll move on to the next question. So after reaching the targeted debt-to-EBITDA ratio in the mid twos, what do you feel is the most efficient way for NASDAQ to redeploy capital going forward, being share repurchases, increasing the quarterly dividend, a special dividend, continuing to reinvest in the business or acquisitions in the future.

[Music] (29:33 – 29:52)

Okay. So, share repurchases topping the list there 52%, increasing the quarterly dividend coming in second at 24%, followed by reinvesting in the business of 14% and special at 7%. Doesn't seem like there's much appetite though for acquisitions in the future at 3%. So, didn't know if you had any color you wanted to add to that or...?

Lee Shavel, Chief Financial Officer & EVP-Corporate Strategy

Certainly, the investors have spoken. I do want to – I do think there is – it's a great question. I appreciate this feedback. I would make the comment that obviously this is based without understanding what the returns are on each of the uses of this capital. So, we are assuming returns on these and certainly we take from this, as we always have, that there is an extra burden, a heightened hurdle on acquisitions in order to be able to justify those as a use of capital and something that we believe would generate a good return on capital.

One thing that I do want to emphasize is that in the recent couple of years, we have implemented a framework that enables us to make comparisons across each of these uses of capital, share repurchases, dividends, reinvesting in the business and acquisitions. And so, we have a responsibility certainly to you but we also have an explicit responsibility to the board to report on what our success is in generating returns on capital in our acquisitions and within the internal investments. And we need to benchmark that against the returns that we think we can deliver in a share repurchase program and a portion of our compensation and certainly my compensation is driven by our success in achieving those targets.

So, I want to emphasize one, we do have a very well established framework that's now in place. It's something that we report to the board and it will drive compensation for our organization. And we certainly believe in the value that we can generate by repurchasing shares. We certainly have not been shy about using that as a means to return capital and we also recognize that if we are going

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NDAQ
Ticker▲Barclays Global Financial
Services Conference
Event Type▲Sep. 10, 2013
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to utilize capital for internal investments, certainly there the 25% returns on invested capital we've generated from those investments I think bolster our confidence in making those and we certainly understand the scrutiny that we'll receive from shareholders around acquisitions. We continue to be very optimistic that eSpeed and Thomson Reuters will generate very attractive returns in excess of what we believe we could have generated from share repurchases in those activities.

Kenneth W. Hill, Analyst, Barclays Capital, Inc.

Okay. Great. Moving on to the next question. So, more along the opportunity, what do you feel is the biggest opportunity for the company moving forward being cash equities, derivatives, information services or technology solutions?

[Music] (32:46 – 33:10)

All right. So, more heavily weighted for the last three there. Derivatives being 35%, 23% from information services and 26% from technology solutions. Cash equities kind of [indiscernible] (33:22) at 16%.

Lee Shavel, Chief Financial Officer & EVP-Corporate Strategy

Yeah. So it's, Ken, I'll tell you my – I'm surprised that it is as broadly spread frankly across these businesses. I would have thought that we would have seen more concentration. Also on the derivatives front, we certainly agree, we see a lot of opportunities in derivatives. And the thing that I would say, however, is that the derivatives business as with the U.S. cash equities is a very competitive business place, and we're very pleased with the market position that we have particularly in the U.S. equities business, but we anticipate it will continue to be competitive.

The thing I would highlight in number three and number four, we have businesses, particularly on the market data side and in indexes, [ph] core position in (34:12) market technology. I'd emphasize we have a very strong market position. Really number one in all of those, in all of those categories. There is no one that has the scale of the presence, serves as many exchanges in market technology as we do. There is no one now with the Thomson Reuters deal that has as much scale in these businesses. In information services, I think that a lot of investors don't appreciate in our proprietary products, what we are able to provide, can't be obtained anywhere else within our sector. And certainly in indexes, it's also where we control the data. And so that competitive strength and our ability to grow revenues in those businesses, is something that perhaps I would highlight as worth digging into to understand the opportunity, the strength, the defensibility of those businesses.

Kenneth W. Hill, Analyst, Barclays Capital, Inc.

Okay. And the last question we have here kind of follows up on that for the non-transaction businesses. What do you think is the longer term organic growth rate for the businesses over time? So, negative being the first choice 0% to 5%, 5% to 10% or greater than 10%?

[Music] (35:23 – 35:42)

All right, well, okay. Thankfully no one thinks are going to be negative going forward, 0% to 5% being the largest high there at 60%, 37% feel 5% to 10% and greater than 10%, only few people looking for greater than 10% growth over longer term for non-organic growth.

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Lee Shavel, Chief Financial Officer & EVP-Corporate Strategy

Yeah. So, I think a good mix. I'm glad to see that there are enough folks that see the potential of these businesses. And certainly growth is an aspect of them and I think I would when we think about the business on the non-transaction side, I think we view the business as fundamentally having a mid-single digit growth characteristic in the current environment. But we believe that in an environment, keep in mind we're holding the transaction businesses to the side here, in an improving environment that there is correlation of these businesses to that activity. So, certainly on the corporate solution side, the listing side, market data, if we see a stronger market environment, more volatility, more capital flowing into our markets, we're going to see an acceleration in improvement of growth, and we think that pulls us into the high-single digit type of environment for the business.

And then with the acquisitions, we clearly see an opportunity to drive even stronger profitability grow through that business. And then if you start with that as a base, I think it's useful to start with the non-transaction revenues as a base understand what the growth dynamics are, it's very steady, it's very stable, it's what drives most of our cash flow and then you layer on top of that the transaction businesses, understanding their leverage to increasing volatility and capital flows as well as the very high operating leverage within the business. From an earnings growth standpoint, I think you can understand that we're very optimistic that in that environment that generating double-digit earnings growth is clearly achievable here in this recovery scenario.

Kenneth W. Hill, Analyst, Barclays Capital, Inc.

Okay. With that we'll open it up to any questions in the audience. Anybody have any final things they wanted to lob up. Another quiet group. I have one on NLX. I think it's probably one of the more interesting initiatives you guys have out there. How do you see the competitive landscape kind of shaping up in Europe? I know you guys have – you're going to be trading the whole curve. ICE was here yesterday, talked about kind of maybe potentially expanding the curve getting into OTC as well. How are you thinking about competitors and what they're doing in the space and how your product is going to differentiate from that?

Lee Shavel, Chief Financial Officer & EVP-Corporate Strategy

Sure. Well, I think it's fairly clear that within that space within Europe, you have two very well established competitors. So we had no illusions about the competitive environment that we were going into. And frankly we felt that that very strong position that they had was a concern for market participants and clearly created an opportunity for us to bring a new product set that was innovative in terms of its ability to cross margin and to do so in partnership with LCH as well as provide a venue in which both sides of the curve could be traded.

We certainly expect that with the interests that those firms have in the market that they will work aggressively to try to defend that. They have a lot of resources, but I think that the – what this hinges on is the level of support that we receive from the founding members and they clearly identified it. Without the support of those clients which I think speak to the need for more competition within that marketplace, we really wouldn't have much of a reason to pursue it. But so far, the level of participation, the adoption rate continues to increase as various participants are able to get connected to the system. And I think that's the overwhelming dynamic that will drive our success within that marketplace, is that that market is demanding a better solution. Certainly the other players will continue to look for ways to protect that market share and we expect a tough fight in that market, but we think we have something unique and we have a lot of great industry support.

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Kenneth W. Hill, Analyst, Barclays Capital, Inc.

Okay. Great. I think we'll wrap it up there. If you guys have any questions, we're doing the breakout in the Clinton Suite again. So, feel free to tag along. And thank you for presenting today.

Lee Shavel, Chief Financial Officer & EVP-Corporate Strategy

Thank you.

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EXHIBIT

G

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H

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NQ 526

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I

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J

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NQ 502

EXHIBIT

L

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EXHIBIT

M

0059

1 THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION

2

3 In the Matter of:

4

5 THE APPLICATION OF SECURITIES

6

7 INDUSTRY AND FINANCIAL MARKETS

8

9 ASSOCIATION

10

11 ADMINISTRATIVE PROCEEDING PRE-HEARING CONFERENCE

12

13 PAGES: 59 through 100

14

15 PLACE: 100 F. Street, N.E.

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17 Washington, D.C. 20549

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19 DATE: Tuesday, December 30, 2014

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P R O C E E D I N G S

JUDGE MURRAY: This is the third pre-hearing conference in the matter of the application of the Securities Industry and Financial Markets Association for review of actions taken by self-regulatory organizations. Just to sort of set the stage, the order -- the Commission issued an order establishing procedures and referring the application for review to the administrative law judge on the 16th of May. We have had two prior

11 pre-hearing conferences, one on June 23rd and the
12 other on December 18th. I've issued one protective
13 order. I issued a procedural schedule which was
14 revised and now the hearing is going to begin on
15 April 20th, 2015.

16 The matter that we have before us today
17 and that we had at the last pre-hearing conference are
18 two subpoena requests by the Securities Industry and
19 Financial Markets Association to NASDAQ and to the
20 New York Stock Exchange. Those subpoenas were
21 requested on the 5th of December.

22 Let me just preface, I spent the holidays
23 with my sister's grandchildren and they were
24 listening to Harry Potter, and so we had a lot of
25 confusion, a lot of noise and general chaos and I

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1 sort of wonder if we've got Harry Potter at a mature
2 level going on here, because we've been flooded with
3 documents and a whole lot of things and we're trying
4 to sort it out. But we'll do the best we can. So
5 you're just going to have to bear with me until I
6 move through some of this.

7 The first thing that was filed was by
8 SIFMA, and it was on the 23rd of December. And it
9 was a notice of a request for modification of my
10 December 19th order to conform with the pre-hearing
11 conference record and SIFMA's position is that my
12 order said I denied the third document request in its
13 subpoena duces tecum. And I apologize. SIFMA's
14 right and I was wrong. I look at it sort of as a
15 semantic problem, but it really is more than
16 semantics.

17 I should not have said that the third
18 request out of 10 requests was denied. If you look
19 at the transcript of the pre-hearing conference, on
20 page 33, I guess it's Mr. Warden's position is, "As I
21 understand the Exchanges' position on item number 3
22 is that they will produce responsive information
23 in -- on or around January 20th which I believe is
24 their due date for their expert report." I say,
25 "Right." And then Mr. Warden then says, "And I'm

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1 fine with that as to number 3, Your Honor."

2 And so I thought that that sort of took
3 care of it. But in his most recent filing, SIFMA
4 wants to make sure that a subpoena is issued on that
5 subject, and they are right on that. They asked for
6 a subpoena. It was modified because the NASDAQ and
7 New York Stock Exchange said they were going to give
8 the information, but, in fact, I did not deny the
9 subpoena. I granted that request.

10 So the request number 3 on the original
11 request for subpoenas was all documents sufficient to
12 identify your market share of order flow and any
13 changes in your market share throughout the period
14 from August 1, 2006 to the present including without
15 limitation all documents sufficient to prepare charts
16 and graphs for NASDAQ equivalent to those contained
17 at JA213-217 of the joint appendix to NetCoalition v.
18 SEC (NetCoalition Roman II) No. 10-1421 (D.C. Circuit
19 March 7th, 2012).

20 Okay. I am granting that subpoena and the
21 return date will be on -- I believe we agreed it

22 would be January 20th. So that takes care of
23 modification number 1. Then I received a letter from
24 NASDAQ and the New York Stock Exchange and that is
25 titled -- well, it doesn't really have a title on it,
0064

1 but anyway, the request is that the modification of
2 the first and second document requests in the
3 subpoenas. And here we've got a little bit of a
4 problem. Probably a considerable problem.
5 The problem seems to be of what is at
6 issue in this proceeding. I'm looking now at the
7 letter which is dated December 24th and it is a
8 request that document request number 1 be modified in
9 the following fashion: That it should state,
10 "Documents sufficient to identify the total number of
11 subscribers to the level 2 depth of book product at
12 issue in this proceeding and any changes in the
13 number of subscribers on a monthly basis from August
14 1st, 2006 to the present." The difference, the new
15 addition to the request would be "to the level 2
16 depth of book product at issue in this proceeding."

17 There was a response to this filed by
18 SIFMA on -- I think it was on December 29th in the
19 secretary's office and that's opposition to request
20 by NASDAQ Stock Market LLC and New York Stock
21 Exchange Arca for modification of December 19th, 2014
22 discovery order. And this was filed by SIFMA. Is
23 this right now? I'm sorry, I'm mixed up on this.

24 MR. WARDEN: Your Honor, this is Mike
25 warden. You are correct on that. It was filed by

0065
1 SIFMA and I apologize if it does not say that in the
2 caption. We'll make sure we remedy that in future
3 filings.

4 JUDGE MURRAY: Oh, that's okay. I've just
5 got so many of these. They're coming in hot and
6 heavy, so I get confused. But anyway, okay. And it
7 seems to me that both parties are right in the fact
8 that, at the last pre-hearing conference, I said that
9 I wanted these requests, the subpoena requests, to be
10 limited to the products that were at issue in this
11 immediate proceeding.

12 The difficulty seems to be that the
13 parties can't agree what the products are at issue in
14 this proceeding. At least NASDAQ and SIFMA cannot
15 agree. On page 2 of SIFMA's opposition to NASDAQ and
16 New York Stock Exchange request for modification of
17 the subpoena, they say, SIFMA says, "All three
18 products, Total View, Open View and Level 2, are at
19 issue in this proceeding." And I believe those are
20 all NASDAQ products.

21 NASDAQ, on the other hand, wants to limit
22 the request in the subpoena to just Level 2 products.
23 And at this stage, you all, as I've said previously,
24 know a lot more about this than I do. I don't know
25 who is right on this controversy. I am guided by the

0066
1 Commission's approach, which one case I can think of
2 off the top of my head is City of Anaheim, which is
3 that the Agency's administrative law judges should
4 take a broad, inclusive position on questions of
5 admissibility.

6 Now, I know that we're not in
Page 3

7 admissibility. We're talking about coverage of a
8 subpoena, not admissibility of evidence in the
9 proceeding, but I'm using that to say that I'm going
10 with SIFMA's position on this. If SIFMA is claiming
11 that these three levels or three different products,
12 NASDAQ products are at issue in this proceeding, I'm
13 giving them the benefit of the doubt and I am not
14 modifying the subpoena request in the way that NASDAQ
15 and the New York Stock Exchange request, okay?

16 MR. LIPTON: Your Honor, this is Joshua
17 Lipton from NASDAQ. May I be heard on this briefly
18 and I think I can help cut through some of this a
19 little bit.

20 JUDGE MURRAY: I wouldn't bet on it,
21 Mr. Lipton, but you're certainly willing -- yes, I
22 would appreciate it if you could.

23 MR. LIPTON: I'll do my best. The NASDAQ
24 rule filing that SIFMA has challenged in this
25 proceeding is a rule filing that modified the

0067
1 distribution fee for one of NASDAQ's depth of book
2 products. NASDAQ has three sets of book products,
3 Level 2, Open View and Total View. The rule filing
4 that SIFMA has challenged here changed the
5 distribution fee for one of those products, the Level
6 2 product.

7 It took that -- it took a distribution fee
8 for that product and made it the same as the
9 distribution fee for NASDAQ's other two products,
10 Total View and Open View, and so that's why the fees
11 for those other products are listed on the fee
12 filing. But the fee filing at issue that SIFMA has
13 challenged here only changed the distribution fee for
14 that one product, the Level 2 product. So that's the
15 issue here.

16 As far as this -- what I'm hoping can cut
17 through this a little bit, as far as discovery
18 requests 1 and 2, if those are limited to the
19 distribution fee which has been challenged here,
20 which I think has already been decided by Your Honor,
21 we're planning to produce, with our disclosures on
22 January 20th of materials relied upon by the experts,
23 information responsive to 1 and 2 for all three
24 products, the Level 2, Total View and Open View.

25 So we're planning to provide that

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1 information anyway, so we would have no objection to
2 providing those discovery materials provided that
3 they are limited to a distribution fee. So I think
4 that resolves the issue from a discovery perspective.
5 I just want to make clear for the record our position
6 on the fee change that's been challenged here.

7 JUDGE MURRAY: Mr. Warden, do you want to
8 be heard on that?

9 MR. WARDEN: I do want to be heard on that
10 because I think that there has been a very important
11 clarification by the Commission since we last spoke
12 with Your Honor. As Your Honor referenced, on
13 December 18th, and she is typically used to an OIP or
14 an order instituting proceedings that set the scope
15 of the proceedings. And indeed when Mr. Rogers and I
16 were before Judge Elliot last year, we had no OIP and
17 we were representing respondents.

18 Here it's different. It's the
19 Commission's order of May 2014 and equally
20 importantly, the Commission's order of December 23rd
21 in which it denied the consolidation motion of SIFMA.
22 But what it said on fees is critical to the scope of
23 this proceeding and, as Your Honor has observed, it's
24 the Commission's order as opposed to an OIP that
25 really governs here and provides the guidance.

0069

1 what the Commission said -- and it's on
2 page 9 of its December 23rd order -- is that -- and
3 one of the things -- let me just step back. One of
4 the issues on which we sought consolidation is we
5 want to consolidate new fees, so our challenge is to
6 new fees.

7 So for example, the specific rule issues
8 at issue here are from 2010. We said, look,
9 Commission, we ought to be able to challenge the
10 current fees. There have been revisions since those
11 2010 filings. Consolidate. And the Commission said,
12 well, consolidation is not necessary, but what it did
13 say about fees makes clear that all of the fees are
14 relevant to this proceeding. And it says on page 9
15 that Your Honor is not prohibited from considering
16 the current Arca book fees or additional NASDAQ depth
17 of book charges implicated by the rule challenges
18 that are the subject of the consolidation motion.

19 In fact, SIFMA asserts that these
20 challenges will be part of the scheduled hearing
21 regardless of whether they are consolidated. Thus,
22 said the Commission, it is not necessary to
23 consolidate fees applications based on the relevance.
24 And also dropped a footnote about considering not --
25 it's appropriate to consider relevant evidence not

0070

1 available at the time of those initial rule filings.

2 So I think -- and we had a lot of
3 discussion with Your Honor about products and fees
4 back on December 18th and Your Honor has received a
5 lot of filings and papers and this really goes to
6 document request number 2 and our amended document
7 request number 4 in our December 19th filing. And so
8 the way the Commission put it and set the scope of
9 this proceedings is, yes, it is the products at issue
10 here, but it's all fees for those products. It is
11 not only the fees set forth in the specific 2010 rule
12 filings. It's all the fees.

13 So we submit, Your Honor, that that is a
14 critical clarification of what is before Your Honor.
15 So the specific products, the Arca book product, the
16 three NASDAQ products, we understand that, as Your
17 Honor articulated, NASDAQ and SIFMA do not see eye
18 eye on that. But the products at issue -- but all
19 fees for those products irrespective of whether
20 they're set forth in the particular proposed rule
21 change from back in 2010.

22 JUDGE MURRAY: Well, it's certainly very
23 generous of the Commission to tell me all these
24 things that I can consider and, yeah, that's fine.
25 I'll do my best. But let's see if we can get through

0071

1 these subpoenas, okay? Let's just see if we can get
2 through these subpoenas.

Tr. at 75 (Dec. 30 2014).txt

3 And I probably -- my order of presentation
4 is a little bit askew in that I should have mentioned
5 that the secretary received on December 22nd an
6 amended request for issuance of subpoenas pursuant to
7 Rule 232 of the Commission's rules of practice. And
8 in that filing, SIFMA made on page 2 certain
9 modifications which I consider substantial in its
10 request, and it did give us modified requests for
11 document request number 4, number 6, number 7. It
12 withdrew document request number 8 and a modification
13 for document request number 9.

14 Maybe taking things out of order, the New
15 York Stock Exchange and NASDAQ, your opposition to
16 these modified subpoena requests, I did not find that
17 persuasive. I mean, it's extensive. You gave me an
18 awful lot of material. But I thought on this one
19 that SIFMA had the better part of it. So I'm willing
20 or I'm ready to grant SIFMA's modified requests for
21 4, 6, 7 and 9. Do you have anything you wanted to
22 add to the opposition -- I should again specify this,
23 that the New York Stock Exchange Arca, Inc.'s
24 opposition to the amended request for issuance of
25 subpoenas pursuant to Rule 232 of the Commission's

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1 rules of practice filed by the Securities Industry
2 and Financial Markets Association. I don't have one.
3 It was filed with the office of the secretary. But
4 the document is dated December 29th, 2014. I've read
5 that and considered it. Do you have anything else
6 you wanted to add to that?

7 MR. HENKIN: Your Honor, this is Douglas
8 Henkin for NYSE Arca. There are a couple of other
9 things I would like to point out and they are
10 largely -- many of them relate to the discussion that
11 you just had with Mr. Warden about the different fees
12 that were imposed by different filings, and I think
13 that's a critical thing both with respect to the
14 shape of this proceeding as a whole and with respect
15 particularly to the document requests, even the
16 amended ones.

17 And the reason for that is -- and I'm only
18 speaking for NYSE Arca here and I'm only talking
19 about Arca book. There are a set of fees that were
20 imposed or created by the November 2010 filing for
21 Arca book which is the one that is at issue here.
22 And those fees, there are access fees, there are
23 professional and nonprofessional display fees,
24 redistribution fees, things like that.

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0073

1 imposed by subsequent filings, not in the November
2 2010 filing, and one example of those is a series of
3 fees that are -- I'm going to simplify them and just
4 call them, for the purposes of this discussion,
5 nondisplay use fees and those are fees, for example,
6 that are charged to high frequency traders and other
7 entities that don't look at Arca book data, but feed
8 it into algorithmic processes or order routers or
9 even some people who buy the data, use it to run
10 alternative venues that actually compete with Arca
11 for order flow. So there were separate charges for
12 those and those were not imposed by the November 2010
13 order.

14 So where SIFMA is asking for everything
15 that relates to all fees, how all fees were set and
16 even amended request number 4, that by definition is
17 asking for information about other filings that from
18 Arca's perspective are not at issue here. And not
19 only is that asking for things on filings that are
20 not at issue here, it would expand the proceeding
21 beyond the order that is at issue here were SIFMA to
22 try to bring those fees into issue.

23 So, for example, when Arca is going to put
24 in its affirmative case, it's going to address the
25 fees that are at issue in the November 2010 filing,

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1 not fees that were imposed by later filings. And as
2 Your Honor said on the 18th, the Exchanges have the
3 right to set the scope of what their affirmative case
4 is going to be and this whole discussion is taking us
5 outside of that right. So with respect to the Arca
6 book itself, that's part of the objection with
7 respect to amended request number 4.

8 JUDGE MURRAY: I'm sorry, but let me just
9 ask you why -- you know, in the revised request
10 number 4 is existing nonpublic documents provided to
11 your decision makers on setting fees for your depth
12 of book products challenged in this proceeding. That
13 wouldn't limit it the way you want it limited?

14 MR. HENKIN: No, not the way Mr. Warden
15 was just describing to Your Honor. He's asking for
16 everything on all fees, even if they weren't imposed
17 by the order, in Arca book's case, the November 2010
18 order and we think that goes too far.

19 MR. WARDEN: Your Honor, this is Mike
20 Warden. May I be heard on this?

21 JUDGE MURRAY: Yeah, but, you know,
22 Mr. Warden, I don't know how I'm going to settle some
23 of these things because you people don't agree what
24 words mean, you know?

25 MR. WARDEN: Your Honor, if I may -- this
0075

1 is Mike Warden again -- I think this is settled and
2 the Commission settled it in its order on
3 consolidation on November 23rd.

4 JUDGE MURRAY: I don't think language like
5 the judge can consider blankety blank, I don't think
6 that necessarily incorporates that into an issue to
7 be decided. They didn't say the judge shall consider
8 this. They said the judge -- I have that order in
9 front of me here. Let's see, the chief ALJ is not
10 prohibited from considering the current Arca book
11 fees or additional -- that doesn't say I shall. I
12 mean, it means if somebody raises it, I don't exclude
13 it on grounds of relevancy.

14 MR. WARDEN: And Your Honor -- Mike Warden
15 here -- we want to raise it and we want discovery on
16 it and we are entitled respectfully to discovery on
17 these issues. The Commission made it clear that you
18 are not prohibited from considering that. We think
19 when you look at this proceeding, very different from
20 an OIP brought by the Division of Enforcement where
21 the Division has to provide the entire investigative
22 record, has to provide Brady material pursuant to the
23 Commission's rules, this is our only opportunity to
24 get evidence.

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1 coming from and I'm sympathetic to that position, but
2 let me tell you, I've got to issue some -- what is
3 the governing standard here? We've got a governing
4 standard of what is not unreasonable, oppressive,
5 excessive in scope or unduly burdensome. That's my
6 guiding -- that's my mantra that I have to go by.

7 So let me ask now back to NASDAQ, I think
8 it is. I heard what you say. I know you differ from
9 SIFMA on your position on this, but how much work or
10 how extensive is this request if I grant what SIFMA
11 says that it wants? Given their interpretation of
12 fees and not yours, fees at issue in this proceeding,
13 if I go with that interpretation, their
14 interpretation, where does that leave you in terms of
15 oppressive, excessive, unreasonable, unduly
16 burdensome? Where do you come out on that one?

17 MR. LIPTON: Your Honor, this is Josh
18 Lipton. With respect to request number 4, request
19 number 4 cannot be done within the current schedule
20 whether it is -- and Mr. Henkin was speaking
21 previously but request number 4 from NASDAQ's
22 perspective cannot be done within the current
23 schedule even if it's limited to the fees at issue
24 here, but certainly not if it's expanded to all fees
25 for all depth of book products for a multiyear

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1 period.

2 The issue, the key issue here with respect
3 to number 4 from NASDAQ's perspective is it's a
4 request for nonpublic documents provided to decision
5 makers on setting fees for depth of book products
6 including considerations and reasons for setting or
7 maintaining the fees. So essentially what they're
8 requiring here would be a search of e-mails and other
9 documents for decision makers which isn't defined
10 here. That's potentially a pretty broad set of
11 people for any documents relating to any
12 considerations or reasons for setting or maintaining
13 the fees.

14 And I think when Mr. Warden says that that
15 request is narrow and limited, he is envisioning,
16 well, maybe there is a document that has all of this
17 stuff, but there was a written request and the
18 reality of the situation is, the way they've written
19 this, this would require a full search and production
20 of e-mails of multiple burden -- a search and review
21 of many thousands of documents.

22 MR. WARDEN: Your Honor --

23 MR. LIPTON: If I may finish. Our
24 substantive filings on the merits are due in 21 days.
25 We're in the final stage of producing those. Even if

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1 I pull everyone on my team off of our substantive
2 work on the merits of this and put us on a document
3 production phase, we cannot get that done in this
4 time period and can't do our filings on the merits
5 and have our expert submissions due in 21 days and
6 simultaneously be in the throes of a very large
7 document review and production.

8 MR. WARDEN: Your Honor, Mike Warden for
9 SIFMA. As Your Honor is well aware, on December

10 18th, I represented to the Court that our document
11 requests do not require an e-mail search. I
12 reiterate that representation. What SIFMA has done
13 here is it wants to avoid the discovery that Your
14 Honor said is par for the course. We have narrowed
15 this request.

16 It's documents to decision makers.
17 There is a handful of documents prepared in the
18 regular course of business. It's not an e-mail
19 search. I said that on the 18th, I say it again.
20 It's the worst kind of strawman that SIFMA has set up
21 to try to avoid -- I'm sorry, that NASDAQ has set up
22 to try to avoid its discovery obligations here. This
23 can be done.

24 JUDGE MURRAY: No, I'm sorry, Mr. Warden,
25 I don't agree. I mean, people take these requests

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1 literally. I mean, they feel obligated if they set
2 something like this that's not limited, to do a
3 tremendous amount of work. I'm willing to give you
4 the opportunity to find some of the materials, but I
5 do think that this revised request to your decision
6 makers is a very, very broad request. You're going
7 to have to rework that somehow and make it -- limit
8 it in some way in terms of like the last two years or
9 something like that to get it down to something that
10 I believe would come within the Commission's standard
11 for granting a subpoena. I just think it's too much.

12 MR. WARDEN: Your Honor, obviously the
13 rule change itself is from 2010 and, Your Honor, what
14 we suggest is that we go back to what Your Honor
15 proposed on the 18th because it's become clear that
16 counsel for NASDAQ is not willing to identify a
17 handful of key documents and provide those.

18 what Your Honor suggested is that counsel
19 for SIFMA get access to NASDAQ officials so we can
20 make that inquiry. Your Honor, we respectfully
21 suggest that this is only a handful of documents with
22 respect to each fee change. It's not scores and
23 scores of e-mails. And we are getting no cooperation
24 from NASDAQ as to how to narrow this request. We
25 don't know who their decision makers are. We don't

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1 know what documents they regularly get.

2 We've said before it's akin to a board
3 package or a decision memo. That's what we are
4 seeking here. It's not scores of documents but
5 absent some actual information from NASDAQ as to what
6 they have at a high level, we think that the only
7 alternative is to provide counsel for SIFMA access to
8 NASDAQ officials as Your Honor suggested on the 18th.

9 MR. HENKIN: Your Honor, this is Doug
10 Henkin. Can I be heard on sort of this general issue
11 for a moment?

12 JUDGE MURRAY: Certainly.

13 MR. HENKIN: So although I don't speak for
14 NASDAQ and I only speak for NYSE Arca, the
15 interchange that you've just heard is exactly why
16 NYSE Arca said what it said in its opposition which
17 is that this particular request, number 6, for
18 example, number 4, for example, is addressed in the
19 fee filings themselves.

20 And to the extent that the Exchanges --

21 and I was speaking for NYSE Arca when I said this in
22 our opposition. To the extent that we are going to
23 rely on something not set forth in the fee filing
24 itself to justify the fees, then we're obviously
25 going to produce that either as an exhibit with

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1 respect to a fact witness's testimony or as reliance
2 materials with respect to something that an expert is
3 going to say.

4 And that really ought to be enough,
5 particularly as Your Honor stated during the
6 conference on December 18th, for SIFMA to know what
7 it needs to meet. And if we're not going to rely on
8 something, then we're not going to rely on it. And
9 that in and of itself should be sufficient for SIFMA
10 to present its affirmative case. And that's why we
11 made that suggestion in Arca's opposition with
12 respect to 4 and 9, and I think that's the way to
13 resolve this. It avoids all the fuss, it avoids all
14 the trouble of having to talk to people or having
15 SIFMA's counsel talk to people and just dragging this
16 out and diverting people's attention from putting in
17 their affirmative materials on January 20th, and then
18 when SIFMA has to put in its affirmative materials.
19 Otherwise, this becomes a side show.

20 MR. WARDEN: Your Honor, this is Mike
21 Warden. Respectfully, it's not a side show. It's
22 discovery. It's par for the course. And SIFMA, in
23 its filing, in its opposition on page 8, made
24 perfectly clear what the Exchanges are trying to do
25 here. The Exchanges have no obligation to turn over

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1 other evidence that might support, detract or
2 otherwise be relevant to their arguments. Your
3 Honor, that's a quotation from their brief. That is
4 telling. That is analogous to as if the Division of
5 Enforcement were before you and said no Brady
6 material or said no investigative order.

7 Now, albeit there are rules that the
8 Commission has imposed that require production of
9 that material, but this is a matter of fundamental
10 fairness. So their position, Your Honor, is that
11 they get to put on whatever witness they want, they
12 get to mark whatever exhibits they want, they get to
13 elicit whatever direct examination they want, but we
14 can't get as part of discovery other evidence that
15 might support, detract from or otherwise be relevant
16 to their arguments.

17 JUDGE MURRAY: Okay. Listen, I understand
18 where you're both coming from. Let me just try to
19 make some sense of this to resolve it. The analogy
20 to Harry Potter isn't that far off, but anyway, does
21 Arca and NASDAQ have a rate department or who handles
22 these things when you make these filings? Is it done
23 by a specific department? Is there some way I can
24 limit this request to give SIFMA the ability to
25 challenge these?

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1 I mean, your position that you've set
2 everything out in your presentation, well, SIFMA is
3 right. You only set out the things that support your
4 position and they want to know whether there is
5 anything in house that would maybe question that or

6 would provide them with some support for their
7 position that your position is not reasonable.
8 But I don't understand your structure well
9 enough to know how I can limit this thing and give
10 SIFMA something but not this broad, time-consuming
11 and burdensome search of all your records. Do you
12 have a department that handles when you make these
13 filings?

14 MR. HENKIN: Two things, Your Honor. This
15 is Doug Henkin for Arca. We don't have a pricing
16 department, as you put it. All of the decisions
17 relevant to -- you know, relative to these filings
18 are made by the market data group and legal folks as
19 well and people in the regulatory and legal groups as
20 well. So it would require not just looking -- not
21 just the type of search that Mr. Lipton was
22 describing, but also a fairly extensive privilege
23 analysis of whatever might be found. So it's not as
24 if there is a pricing person or a pricing group of
25 people. It's people who do different things, you

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1 know, for all of the various filings, some of which
2 relate to pricing, some of which don't.

3 The other aspect of this that is
4 important, it's the different fees that I pointed out
5 before. So there are some fees that were established
6 by the November 2010 filing with respect to Arca book
7 and some that were established by later filings with
8 respect to Arca book. So if you limit it to the
9 filing that's at issue, that's one set, but if you're
10 accepting Mr. Warden's position, which I didn't think
11 you were, that all fees are at issue even from later
12 filings, then that would obviously make it a much
13 harder task to undertake.

14 The other thing I wanted to point out is
15 that Mr. Warden's position is a little bit
16 topsy-turvy because they are the ones who have
17 asserted these fees across the board are too high.
18 So if they have evidence they think shows that, then
19 they should speak up and point out what that evidence
20 is. But right now, what they're saying is
21 effectively, we think these fees are too high, we're
22 not going to tell you why, our members, nine of them
23 at least, think they're too high, they're not going
24 to tell you why, you should give us everything that
25 might support our case. With all due respect to

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1 Mr. Warden, Your Honor, we don't think that's the way
2 this proceeding ought to go forward.

3 MR. WARDEN: Your Honor, this is Mike
4 Warden --

5 JUDGE MURRAY: Listen, we're not going to
6 get anywhere with you all criticizing the other
7 side's position. All I'm trying to do is to work
8 through a subpoena request. The dialogue, the
9 argument part and the critical comments about the
10 other side isn't going to help. It isn't going to
11 help at all. I'll tell you --

12 MR. WARDEN: Your Honor.

13 JUDGE MURRAY: No --

14 MR. WARDEN: Your Honor, this is Mike
15 Warden, if I may. The one group that Mr. Henkin did
16 indicate that we are most interested in is the market

17 data group and the question is what kind of decision
18 level documents or other analogous documents do they
19 generate in the regular course on these issues and to
20 me that's a pretty simple inquiry that shouldn't be
21 very burdensome.

22 JUDGE MURRAY: But let me tell you, if
23 you're working in a market data group, you generate a
24 lot of material. I mean, those people have to
25 support their salaries so they're putting out a lot

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1 of stuff. And the way you've got this thing worded
2 is, you know, you would be getting every market data
3 person's thoughts on some of these increases for the
4 last, what, you're going back to 2006? So it's
5 just -- I mean, you're -- I want to be helpful but
6 you're asking for too much. I'll tell you, I'll just
7 have to try to rework it myself and then you can all
8 file motions to quash, which I -- you know, we're
9 getting close to this hearing now and I've already
10 postponed the dates once at you all's request. I'm
11 not going to do it again.

12 All right. No. So we can't reach any
13 agreement on request number 4, so I'm going to have
14 to do something with it and do what I can. Okay.
15 Where are we now with the other modified requests
16 which I thought were reasonable? So we have no
17 agreement on 4. I've read the opposition. Now, have
18 I got anything else on 6 in addition to the
19 opposition that I've read 6, is it 7 and 9?

20 MR. HENKIN: Your Honor, this is Doug
21 Henkin. I would just reiterate what we said in the
22 opposition. That is not how -- there is nothing
23 responsive for Arca and, in any event, we don't think
24 that, you know, allowing that discovery makes sense
25 for all the reasons we set forth, but we don't have

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1 anything anyway.

2 JUDGE MURRAY: Gotcha. Okay. That takes
3 care of those.

4 MR. WARDEN: Your Honor, this is Mike
5 Warden, if I may.

6 JUDGE MURRAY: Yes.

7 MR. WARDEN: The subpoena should issue and
8 if NYSE Arca's response is we have no responsive
9 documents, then so be it. And that's far from
10 burdensome to say we don't have anything responsive,
11 but we think that, Your Honor, with respect to
12 granting the balance of these requests as revised in
13 our December 23rd filing, should go ahead and do that
14 and if the Exchanges don't have documents, they don't
15 have documents.

16 JUDGE MURRAY: Okay.

17 MR. LIPTON: Your Honor, Josh Lipton for
18 NASDAQ. May I be heard on 6, 7 and 9 briefly?

19 JUDGE MURRAY: Yes.

20 MR. LIPTON: With respect to 6 and 7, the
21 cost and profitability data, Your Honor resolved
22 those on the previous call and explained why the
23 Exchanges should not be required to put forward
24 evidence that they're not going to rely upon for
25 their case. We think that resolves 6 and 7 and they

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1 should not be issued.

2 Furthermore, again, it relates to burden
3 and it relates to timing. To the extent we're going
4 to go off now searching for, as SIFMA has framed
5 these requests for cost data, various cost elements
6 that are necessary for the production of one type of
7 data, but not required for the production of
8 something else on this joint platform, aside from the
9 relevance issues which Your Honor already decided,
10 would impose undue burdens on NASDAQ at this point in
11 this stage of the proceeding.

12 With respect to number 9, number 9 is
13 similar to number 4 in the sense that it's going to
14 call for far-reaching for search and production of
15 documents. As I understand it, the way SIFMA has
16 framed number 9, they're envisioning a single person
17 who is responsible for competitive analyses, and that
18 they produce some sort of a regular document that
19 they can just go to a file cabinet and pull out. The
20 reality is the way they've framed the request, it's
21 documents maintained by an individual or individuals
22 responsible for creating tracking information about
23 competitive products as well as pricing strategy.
24 The way they framed this, it's a large group of
25 people. It's going to require an extensive search

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1 for -- it's going to require an extensive document
2 production to respond to it.

3 JUDGE MURRAY: But if you look at their
4 modifications on page 2 of their amended request
5 where they say, to the extent the request seeks
6 documents held by individual custodians, they seek
7 only those documents held by the key person or
8 persons. So they're not -- it's not as broad as it
9 would appear. If you look at the way it's been
10 modified on page 2, he's got three modifications
11 there that limit the request.

12 And let me just say, I know NASDAQ and the
13 New York Stock Exchange's position is that they
14 shouldn't have any discovery, SIFMA. But SIFMA's
15 position, which I give some weight to, is that you
16 all, as part of your case, are going to present
17 positive information and data that supports it and
18 they want to know whether there is anything else
19 there that they could raise to question that, and
20 they have the right to do that. I mean, that's what
21 discovery is all about. So your hard nose position
22 is -- I don't buy it. I somehow have to get where
23 SIFMA has the right to get something but it comes
24 within the Commission's criteria for the granting of
25 a subpoena.

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1 Okay. All right. I've got to modify 3
2 and let's see -- do I have enough information to
3 modify 1 and 2? Is there anything else that I need
4 to know about 1 and 2 before I go back to the drawing
5 board?

6 MR. WARDEN: No, Your Honor.

7 JUDGE MURRAY: Okay. If there is nothing
8 else, then I will go back to the drawing board and I
9 will issue subpoenas -- first of all, I'll call the
10 reporting company and see if I can get a copy of this
11 transcript before two weeks, which I think is the
12 time under the Commission's contract for regular

13 service of transcripts, so I can't do anything until
14 I get the transcript.

15 And as far as return dates, I'm assuming
16 that the conversation we had at the last pre-hearing
17 conference where the Exchanges did not want to do
18 anything before their direct case was due, which was
19 January 20th, and SIFMA wanted to get materials
20 before its presentation was due, so I've got that
21 period in February, maybe the first week or so of
22 February. Is that due date -- is that return date
23 agreeable? Provided that you don't want any
24 subpoenas, is that return date agreeable?

25 MR. WARDEN: Your Honor, this is Mike

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1 Warden. In your order of December 19th, it's on the
2 second page and in the footnote 2, you suggested
3 January 27th which is after the due date and we
4 certainly concur with that.

5 JUDGE MURRAY: Okay. All right.

6 MR. LIPTON: Your Honor, this is Joshua
7 Lipton for NASDAQ. I guess two comments on the
8 timing. One is our expert submissions, our
9 affirmative expert submissions are due on January
10 20th. If significant materials are flowing into the
11 record following their submissions that are
12 affirmative materials, that risks prejudicing us in
13 the narrative of the case.

14 JUDGE MURRAY: I'm sorry, say that one
15 more time.

16 MR. LIPTON: Our expert materials are due
17 on January 20th.

18 JUDGE MURRAY: Right.

19 MR. LIPTON: Currently, we are, consistent
20 with the Commission's order, including the
21 Commission's order denying consolidation of all these
22 other fee petitions, those expert materials are
23 gearing up toward the specific fee petition at issue
24 in this proceeding.

25 JUDGE MURRAY: Right.

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1 MR. LIPTON: And they're gearing up based
2 on materials that we've anticipated all along would
3 be part of the record. If significant additional
4 materials are flowing into the record after that
5 point and SIFMA is going to be joining issues on a
6 whole bunch of other fees as well as other materials,
7 we will be prejudiced to the extent that our experts
8 do not have access to those materials to this point.
9 So that's one issue with respect to return dates
10 after our submissions are due.

11 JUDGE MURRAY: Could I just take care of
12 that one, one at a time? You talk about things
13 flowing into the record. Nothing's flowing into the
14 record at this time. This record only consists at
15 this time of the Commission's orders. The record in
16 this case will be established at the hearing and it
17 will consist of evidence, the transcript of the
18 hearing and exhibits that are offered and admitted.
19 We're talking about discovery. None of this material
20 has been admitted into evidence so that's a
21 completely -- you're talking apples and oranges here,
22 okay?

23 The record in the case will be what

24 happens at the hearing. None of the subpoenaed
25 material is going to be part of the record in the

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1 case unless somebody gets a hold of it and decides
2 that they want to offer it, and then we will have the
3 rules on admissibility come into play. If anything
4 comes up that the expert has not considered, I will
5 allow the expert to give an opinion on that.

6 The way I run a hearing is that the expert
7 gets on the stand, adopts his expert testimony and is
8 then subject to cross-examination. There is no
9 further direct examination of the expert. His
10 precirculated expert testimony is his direct. We go
11 right to cross. If there is an issue of something's
12 come up that the expert did not consider, I will
13 allow examination on that limited subject. I think
14 that takes care of the first part of your question.
15 I didn't mean to cut off the second part.

16 MR. LIPTON: Your Honor, can I ask a
17 clarifying question? So, for example, if there is a
18 request granted for cost and profitability data, that
19 data is produced with a return date after my experts'
20 opinions are due, we're going to have affirmative
21 testimony that doesn't address something that SIFMA's
22 going to put in their expert opinions after based on
23 a discovery record that will not have been available
24 to my experts.

25 JUDGE MURRAY: I'm sorry, you've lost me

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1 completely.

2 MR. LIPTON: Well, SIFMA is seeking
3 discovery about cost and profitability materials.
4 They're also seeking discovery about fees and fee
5 petitions that up until today, December 30th, were
6 not only not part of this proceeding but that the
7 Commission had expressly denied consolidation into
8 this proceeding. If our experts' reports and
9 affirmative testimony are due on January 20th and
10 these materials become part of the discovery record
11 after that time, then we're going to have SIFMA
12 experts and SIFMA witnesses give opinions on those,
13 we're going to be prejudiced to the extent our
14 experts have not been able to address everything that
15 comes into play in the proceeding.

16 MR. WARDEN: Your Honor, this is Mike
17 Warden --

18 JUDGE MURRAY: Wait, wait, wait, wait a
19 minute. Let's take it a step at a time. In most of
20 the cases, the person with the burden of proof or the
21 party with the burden of proof makes the initial
22 presentation, then we have the opposition -- after
23 that initial presentation is completed, then the
24 opposition presents their case, and then the person
25 with the burden of proof or the party with the burden

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1 of proof has a rebuttal case.

2 If your expert or layperson or whatever
3 witness you have wants to put on a rebuttal case
4 rebutting something that SIFMA has put on, then, you
5 know, you're entitled to do that. So this idea of
6 prejudice, I mean, one of the jobs that I have is to
7 run a fair hearing, and I will do that. You will all
8 have an opportunity to present a case, you know, to

9 give it your best shot and that's my job to make sure
10 that you have that.

11 So I don't see there is any prejudice.
12 The fact that SIFMA is allowed discovery is not -- I
13 mean, it is -- it shouldn't be prejudicial to you. I
14 mean, they might find things and find out that they
15 support your position. I mean, you're taking a very
16 negative view towards this, and I guess in your role,
17 you have to. But it's not automatic that they're
18 going to use everything they find in discovery and
19 put it in evidence. They might get nothing. This is
20 an exercise. It's a game. We play this game. There
21 are certain rules to it and these are the rules that
22 we go by.

23 All right. I'm sorry. Did you have
24 anything else?

25 MR. LIPTON: Yes, Your Honor, this is Josh
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1 Lipton. There is a second issue which is the timing
2 of our January 20th submission. I said a couple of
3 times we're in the final stages of preparing our
4 submissions. There are two issues here. One is if
5 our resources are diverted -- and I don't know what
6 the scope of any discovery that might be granted is,
7 but to the extent our resources are diverted to
8 conducting interviews with people and searching for
9 the illusive document that summarizes the reason for
10 a fee filing or fee filings over the course of
11 several years, our resources are currently committed
12 to producing our case on the merits.

13 Our resources have already been diverted
14 to financials as well as these filings. If our
15 resources are further diverted and our key executives
16 and members of our legal team are diverted to a
17 document search, whether that's a full e-mail search
18 or a needle in a haystack search for certain fee
19 documents, that will prejudice our ability to file on
20 the 20th.

21 And furthermore, with respect to our
22 experts, if cost and profitability data are
23 introduced, we said previously that we were going to
24 put our case on the merits and satisfy our burden of
25 production. And previously Your Honor had said that
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1 we were entitled to put on our case as we see fit, if
2 the scope of that changes and we're introducing what
3 will ultimately amount to a very large side
4 proceeding about the nature and relevance of cost and
5 profitability data, that adds a very significant
6 dimension to what our experts are going to need to
7 address in three weeks. And here we are on December
8 30th going -- if we go from a scope where we're
9 entitled to put on our own case as opposed to having
10 to introduce cost and profitability data, that
11 changes the scope of things and it presents serious
12 challenges.

13 JUDGE MURRAY: You've made many of those
14 points several times. I mean, I've read them and
15 I've heard them and I'm conscious of them. I mean,
16 that's why they've hired top counsel to do these
17 cases. I just have to run the proceeding the best
18 way I know how and the fairest way I know how and
19 I'll try to do that. Is there anything else we have

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to cover?
MR. WARDEN: Mike Warden for SIFMA, Your Honor. No, Your Honor. Thank you for your time.
JUDGE MURRAY: Okay. If there is nothing else, then I will issue something as soon as I possibly can. I thank you all very much. Best wishes for the new year. The pre-hearing conference is adjourned.
MR. WARDEN: Thank you, Your Honor. (Whereupon, at 11:03 a.m., the pre-hearing conference was concluded.)
* * * * *

PROOFREADER'S CERTIFICATE

In The Matter of: THE APPLICATION OF SECURITIES
INDUSTRY AND FINANCIAL MARKETS
ADMINISTRATIVE PROCEEDING - PRE-HEARING CONFERENCE
File Number: 3-16263
Date: December 30, 2014
Location: Washington, D.C.

This is to certify that I, Nicholas Wagner, (the undersigned), do hereby swear and affirm that the attached proceedings before the U.S. Securities and Exchange Commission were held according to the record and that this is the original, complete, true and accurate transcript that has been compared to the reporting or recording accomplished at the hearing.

(Proofreader's Name) (Date)