

*Required fields are shown with yellow backgrounds and asterisks.*

Page 1 of * 113		SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549 Form 19b-4		File No.* SR - 2014 - * 011		Amendment No. (req. for Amendments *)	
Filing by NASDAQ Stock Market Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934							
Initial * <input checked="" type="checkbox"/>		Amendment * <input type="checkbox"/>		Withdrawal <input type="checkbox"/>		Section 19(b)(2) * <input type="checkbox"/>	
						Section 19(b)(3)(A) * <input checked="" type="checkbox"/>	
						Section 19(b)(3)(B) * <input type="checkbox"/>	
						Rule	
Pilot <input type="checkbox"/>		Extension of Time Period for Commission Action * <input type="checkbox"/>		Date Expires * <input type="text"/>		<input type="checkbox"/> 19b-4(f)(1) <input type="checkbox"/> 19b-4(f)(4)	
						<input checked="" type="checkbox"/> 19b-4(f)(2) <input type="checkbox"/> 19b-4(f)(5)	
						<input type="checkbox"/> 19b-4(f)(3) <input type="checkbox"/> 19b-4(f)(6)	
Notice of proposed change pursuant to the Payment, Clearing, and Settlement Act of 2010				Security-Based Swap Submission pursuant to the Securities Exchange Act of 1934			
Section 806(e)(1) * <input type="checkbox"/>		Section 806(e)(2) * <input type="checkbox"/>		Section 3C(b)(2) * <input type="checkbox"/>			
Exhibit 2 Sent As Paper Document <input type="checkbox"/>		Exhibit 3 Sent As Paper Document <input type="checkbox"/>					
<b>Description</b>							
Provide a brief description of the action (limit 250 characters, required when Initial is checked *).							
<input type="text" value="A proposal to modify fees for the NASDAQ Basic data product."/>							
<b>Contact Information</b>							
Provide the name, telephone number, and e-mail address of the person on the staff of the self-regulatory organization prepared to respond to questions and comments on the action.							
First Name * <input type="text" value="John"/>		Last Name * <input type="text" value="Yetter"/>					
Title * <input type="text" value="Vice President and Chief Counsel"/>							
E-mail * <input type="text" value="john.yetter@nasdaqomx.com"/>							
Telephone * <input type="text" value="(301) 978-8497"/>		Fax <input type="text" value="(301) 978-8472"/>					
<b>Signature</b>							
Pursuant to the requirements of the Securities Exchange Act of 1934,							
has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized.							
(Title *)							
Date <input type="text" value="01/27/2014"/>		<input type="text" value="Executive Vice President and General Counsel"/>					
By <input type="text" value="Edward S. Knight"/>							
(Name *)							
NOTE: Clicking the button at right will digitally sign and lock this form. A digital signature is as legally binding as a physical signature, and once signed, this form cannot be changed.							
<input type="button" value="Digitally Sign and Lock Form"/>							

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

For complete Form 19b-4 instructions please refer to the EFFF website.

**Form 19b-4 Information \***

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The self-regulatory organization must provide all required information, presented in a clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal is consistent with the Act and applicable rules and regulations under the Act.

**Exhibit 1 - Notice of Proposed Rule Change \***

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The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

**Exhibit 1A- Notice of Proposed Rule Change, Security-Based Swap Submission, or Advance Notice by Clearing Agencies \***

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The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change, security-based swap submission, or advance notice being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

**Exhibit 2 - Notices, Written Comments, Transcripts, Other Communications**

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Exhibit Sent As Paper Document

Copies of notices, written comments, transcripts, other communications. If such documents cannot be filed electronically in accordance with Instruction F, they shall be filed in accordance with Instruction G.

**Exhibit 3 - Form, Report, or Questionnaire**

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Exhibit Sent As Paper Document

Copies of any form, report, or questionnaire that the self-regulatory organization proposes to use to help implement or operate the proposed rule change, or that is referred to by the proposed rule change.

**Exhibit 4 - Marked Copies**

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The full text shall be marked, in any convenient manner, to indicate additions to and deletions from the immediately preceding filing. The purpose of Exhibit 4 is to permit the staff to identify immediately the changes made from the text of the rule with which it has been working.

**Exhibit 5 - Proposed Rule Text**

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The self-regulatory organization may choose to attach as Exhibit 5 proposed changes to rule text in place of providing it in Item I and which may otherwise be more easily readable if provided separately from Form 19b-4. Exhibit 5 shall be considered part of the proposed rule change.

**Partial Amendment**

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If the self-regulatory organization is amending only part of the text of a lengthy proposed rule change, it may, with the Commission's permission, file only those portions of the text of the proposed rule change in which changes are being made if the filing (i.e. partial amendment) is clearly understandable on its face. Such partial amendment shall be clearly identified and marked to show deletions and additions.

1. Text of Proposed Rule Change

(a) Pursuant to the provisions of Section 19(b)(1) under the Securities Exchange Act of 1934 (“Act”),<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> The NASDAQ Stock Market LLC (“NASDAQ” or “Exchange”) is filing with the Securities and Exchange Commission (“Commission”) a proposal to modify fees for the NASDAQ Basic data product. The proposal, which modifies monthly fees, is effective for the month of January 2014 and subsequent months.

A notice of the proposed rule change for publication in the Federal Register is attached hereto as Exhibit 1 and the text of the proposed rule change is attached as Exhibit 5.

(b) Not applicable.

(c) Not applicable.

2. Procedures of the Self-Regulatory Organization

The proposed rule change was approved by senior management of the Exchange pursuant to authority delegated by the Board of Directors of NASDAQ on July 17, 2013. Exchange staff will advise the Board of Directors of the Exchange of any action taken pursuant to delegated authority. No other action by the Exchange is necessary for the filing of the rule change.

Questions and comments on the proposed rule change may be directed to John M. Yetter, Vice President and Chief Counsel, at (301) 978-8497.

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<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> 17 CFR 240.19b-4.

3. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

a. Purpose

NASDAQ Basic is a proprietary data product that provides best bid and offer information from the NASDAQ Market Center and last sale transaction reports from the NASDAQ Market Center and from the FINRA/NASDAQ Trade Reporting Facility ("FINRA/NASDAQ TRF"). As such, NASDAQ Basic provides a subset of the "core" quotation and last sale data provided by securities information processors ("SIPs") under the CQ/CT Plan and the NASDAQ UTP Plan. In this filing, NASDAQ is proposing to (i) increase the Subscriber fees charged with respect to "Professional" Subscribers to the product, for the first time since the introduction of the product in 2009, (ii) introduce a new enterprise license for Professional Subscribers; and (iii) add rules to allow "netting," in certain instances, by Subscribers with multiple means of access to NASDAQ Basic, in order to reduce the total number of Subscribers for which a fee will be charged.

NASDAQ Basic contains three separate components, which may be purchased individually or in combination: (i) NASDAQ Basic for NASDAQ, which contains the best bid and offer on the NASDAQ Market Center and last sale transaction reports for NASDAQ and the FINRA/NASDAQ TRF for NASDAQ-listed stocks, (ii) NASDAQ Basic for NYSE, which covers NYSE-listed stocks, and (iii) NASDAQ Basic for NYSE MKT, which covers stocks listed on NYSE MKT and other listing venues whose quotes and trade reports are disseminated on Tape B.<sup>3</sup>

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<sup>3</sup> NASDAQ is modifying the text of Rule 7047 to make it clear that NASDAQ Basic for NYSE MKT includes information for all Tape B listing venues and to use consistent terminology to describe the three data elements of NASDAQ Basic throughout the rule.

The fee structure for NASDAQ Basic features a fee for Professional Subscribers and a reduced fee for Non-Professional Subscribers.<sup>4</sup> The current monthly fees for Non-Professional Subscribers, which are not being modified, are \$0.50 per Subscriber for NASDAQ Basic for NASDAQ, \$0.25 per Subscriber for NASDAQ Basic for NYSE, and \$0.25 per Subscriber for NASDAQ Basic for NYSE MKT. The current monthly fees for Professional Subscribers are \$10 per Subscriber for NASDAQ Basic for NASDAQ, \$5 per Subscriber for NASDAQ Basic for NYSE, and \$5 per Subscriber for NASDAQ Basic for NYSE MKT. As discussed in more detail below, NASDAQ is proposing to increase the Professional Subscriber fees to \$13, \$6.50, and \$6.50, respectively. For use cases that do not require a monthly subscription for unlimited usage, there is a Per Query option, with a fee of \$0.0025 for NASDAQ Basic for NASDAQ, \$0.0015 for NASDAQ Basic for NYSE, and \$0.0015 for NASDAQ Basic for NYSE MKT.

Distributors<sup>5</sup> of NASDAQ Basic may also be assessed a monthly Distributor Fee.

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<sup>4</sup> A “Non-Professional Subscriber” is “a natural person who is not (i) registered or qualified in any capacity with the Commission, the Commodity Futures Trading Commission, any state securities agency, any securities exchange or association, or any commodities or futures contract market or association; (ii) engaged as an “investment adviser” as that term is defined in Section 201(11) of the Investment Advisers Act of 1940 (whether or not registered or qualified under that Act); or (iii) employed by a bank or other organization exempt from registration under federal or state securities laws to perform functions that would require registration or qualification if such functions were performed for an organization not so exempt.” A “Professional Subscriber” is “any Subscriber other than a Non-Professional Subscriber.” Although these definitions are currently applicable to Rule 7047 through incorporation by reference, NASDAQ is adding them directly to the rule to enhance its clarity.

<sup>5</sup> The definition of the term “Distributor” is being added directly to Rule 7047 to enhance the rule’s clarity. The term “refers to any entity that receives NASDAQ Basic data directly from NASDAQ or indirectly through another entity and then distributes it to one or more Subscribers.” Distributors may either be “Internal Distributors”, which are “Distributors that receive NASDAQ Basic data and then distribute that data to one or more Subscribers within the Distributor’s own

The fee is \$1,500 per month for either internal or external distribution; however, a credit for Subscriber or Per Query fees may be applied against the Distributor Fee at the Distributor's request.

As an alternative to monthly Subscriber fees for Non-Professional Subscribers, NASDAQ also offers an enterprise license under which a broker-dealer may distribute NASDAQ Basic to an unlimited number of Non-Professional Subscribers with whom the broker-dealer has a brokerage relationship at a rate of \$100,000 per month (as well as the applicable monthly Distributor fee). In addition, a Distributor of data derived from NASDAQ Basic (but not NASDAQ Basic itself) may pay a fee of \$1,500 per month (plus the applicable monthly Distributor fee) to distribute the derived data to an unlimited number of Non-Professional Subscribers. This type of Distributor will typically distribute data to a large number of downstream customers through web-based applications.

The proposed increase in Professional Subscriber fees would constitute the first such increase since NASDAQ Basic was introduced in 2009. Since that time, NASDAQ has continually enhanced the product through capacity upgrades, in keeping with increases in demand for the product; during this period, the network capacity for NASDAQ Basic has increased from a 15 Mb feed to the current 84 Mb feed. Additionally, NASDAQ has enhanced the product in numerous respects. These have included the addition of messages to indicate the start and end time of the NASDAQ Market Center's system day and the end of regular trading hours; a new IPO message for

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entity," or "External Distributors", which are "Distributors that receive NASDAQ Basic data and then distribute that data to one or more Subscribers outside the Distributor's own entity."

NASDAQ-listed securities to relay the quotation release time as well as the IPO price to be used for intraday net change calculations; an enhanced symbol directory with limit up/limit down reference price tiers; dissemination of retail liquidity identifiers under NASDAQ Rule 4780; market-wide circuit breaker decline levels and status information; enhanced sale condition modifiers in accordance with changes made to data disseminated by the SIPs; support for a 4 a.m. start to NASDAQ's trading day; support for single stock trading pauses; latency monitoring; and clearer differentiation between NYSE and NYSE MKT trades in the data stream.

NASDAQ further notes that the professional fees for "core" quote and last-sale data provided under the NASDAQ UTP Plan were increased, effective January 2014, from \$20 to \$23 per Subscriber per month.<sup>6</sup> Similar fees under the CQ/CT Plans are \$24 per subscriber per month for securities listed on NYSE MKT and other Tape B securities, and range from \$20 to \$50 per month for NYSE-listed securities. Accordingly, NASDAQ believes that the change in NASDAQ Basic fees is also warranted as a means of ensuring that the fees for NASDAQ Basic accurately reflect the value of NASDAQ Basic data as a subset of "core" data available from the SIPs, thereby avoiding distortions in demand for core data that might result from fees that do not accurately reflect NASDAQ Basic's value.

However, to mitigate the effect of the fee increase on Distributors and Subscribers, NASDAQ is proposing two additional changes. First, NASDAQ is proposing to introduce a net reporting option for Distributors to reduce the overall number of internal Professional Subscribers deemed to be fee liable with respect to

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<sup>6</sup> Securities Exchange Act Release No. 70953 (November 27, 2013), 78 FR 72932 (December 4, 2013) (File No. S7-24-89).

“Display Usage” of NASDAQ Basic.<sup>7</sup> This option is similar to a net reporting option recently introduced under the NASDAQ UTP Plan.<sup>8</sup> Under the proposed netting rules:

- A Subscriber that receives access to NASDAQ Basic through multiple products controlled by an Internal Distributor will be considered one Subscriber. Thus, if a broker-dealer acts as a Distributor of NASDAQ Basic in multiple forms to its employees, each employee would be considered one Subscriber.
- A Subscriber that receives access to NASDAQ Basic through multiple products controlled by one External Distributor will be considered one Subscriber. Thus, if a broker-dealer arranges for its employees to receive access to multiple NASDAQ Basic products provided by a single vendor, each employee would be considered one Subscriber.
- A Subscriber that receives access to NASDAQ Basic through one or more products controlled by an Internal Distributor and also one or more products controlled by one External Distributor will be considered one Subscriber. Thus, if the broker-dealer provides employees with access through its own product(s) and through products from a single vendor, each employee would still be considered one Subscriber.
- A Subscriber that receives access to NASDAQ Basic through one or more products controlled by an Internal Distributor and also products controlled by multiple External Distributors will be treated as one Subscriber with respect to the products controlled by the Internal Distributor and one of the External Distributors, and will be treated as an additional Subscriber for each additional External Distributor. Thus, a Subscriber receiving products through an Internal Distributor and two External Distributors will be treated as two Subscribers. Put another way, access through an Internal Distributor may be netted against access through one External Distributor, but two External Distributors may not be netted.

Distributors benefitting from net reporting must demonstrate adequate internal controls for identifying, monitoring, and reporting all usage. The burden will be on the Distributor to demonstrate that particular instances of netting are justified.

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<sup>7</sup> As reflected in a new definition being added to Rule 7047, “Display Usage” means “any method of accessing NASDAQ Basic data that involves the display of such data on a screen or other visualization mechanism for access or use by a natural person or persons.” Netting does not apply to uses other than Display Usage (i.e., use by an automated device without visual access by natural persons).

<sup>8</sup> Securities Exchange Act Release No. 70953 (November 27, 2013), 78 FR 72932 (December 4, 2013) (File No. S7-24-89).

Second, NASDAQ is proposing to offer a new enterprise license for Professional Subscribers. Under the enterprise license, a broker-dealer may distribute NASDAQ Basic for NASDAQ, NASDAQ Basic for NYSE, and NASDAQ Basic for NYSE MKT for a flat fee of \$365,000 per month; provided, however, that if the broker-dealer obtains the license with respect to usage of NASDAQ Basic provided by an External Distributor that controls display of the product, the fee will be \$365,000 per month for up to 16,000 internal Professional Subscribers, plus \$2 for each additional internal Professional Subscriber over 16,000.<sup>9</sup> Thus, given the total proposed modified fee of \$26 per Subscriber per month for receiving all three components of NASDAQ Basic, the option will reduce costs for broker-dealers with more than 14,038 Internal Subscribers ( $\$365,000 \div \$26$ ). A broker-dealer that purchases an enterprise license will also be entitled to receive, at no additional charge, access to NASDAQ Last Sale (“NLS”) data for its own stock price and the stock price of up to ten of its competitors or peers, for display use on the broker-dealer’s internal website. NLS provides, in real time, last sale information for stocks listed on NASDAQ, NYSE, and other listing venues, as reported by the NASDAQ Market Center or reported to the FINRA/NASDAQ TRF.

b. Statutory Basis

NASDAQ believes that the proposed rule change is consistent with the provisions of Section 6 of the Act<sup>10</sup> in general, and with Sections 6(b)(4) and (5) of the Act<sup>11</sup> in

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<sup>9</sup> The \$2 fee is necessary to defray additional costs incurred by NASDAQ when distributing NASDAQ Basic through an External Distributor that controls display of the product, costs which NASDAQ would not otherwise be able to recoup under an enterprise license arrangement.

<sup>10</sup> 15 U.S.C. 78f.

<sup>11</sup> 15 U.S.C. 78f(b)(4), (5).

particular, in that it provides for the equitable allocation of reasonable dues, fees and other charges among recipients of NASDAQ data and is not designed to permit unfair discrimination between them. In adopting Regulation NMS, the Commission granted self-regulatory organizations (“SROs”) and broker-dealers (“BDs”) increased authority and flexibility to offer new and unique market data to the public. It was believed that this authority would expand the amount of data available to consumers, and also spur innovation and competition for the provision of market data. NASDAQ believes that its NASDAQ Basic market data product is precisely the sort of market data product that the Commission envisioned when it adopted Regulation NMS. The Commission concluded that Regulation NMS—by deregulating the market in proprietary data—would itself further the Act’s goals of facilitating efficiency and competition:

[E]fficiency is promoted when broker-dealers who do not need the data beyond the prices, sizes, market center identifications of the NBBO and consolidated last sale information are not required to receive (and pay for) such data. The Commission also believes that efficiency is promoted when broker-dealers may choose to receive (and pay for) additional market data based on their own internal analysis of the need for such data.<sup>12</sup>

By removing unnecessary regulatory restrictions on the ability of exchanges to sell their own data, Regulation NMS advanced the goals of the Act and the principles reflected in its legislative history. If the free market should determine whether proprietary data is sold at all, it follows that the price at which such data is sold should be set by the market as well. NASDAQ Basic exemplifies the optional nature of proprietary data, since, depending on a customer’s specific goals, it may opt to purchase core SIP data or only the subset provided through NASDAQ Basic. Moreover, as discussed in

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<sup>12</sup> Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37496 (June 29, 2005).

more detail below, the price that NASDAQ is able to charge is constrained by the existence of substitutes in the form of SIP data and competitive products offered by other SROs.

The decision of the United States Court of Appeals for the District of Columbia Circuit in NetCoalition v. SEC, 615 F.3d 525 (D.C. Cir. 2010) (“NetCoalition I”), upheld the Commission’s reliance upon competitive markets to set reasonable and equitably allocated fees for market data. “In fact, the legislative history indicates that the Congress intended that the market system ‘evolve through the interplay of competitive forces as unnecessary regulatory restrictions are removed’ and that the SEC wield its regulatory power ‘in those situations where competition may not be sufficient,’ such as in the creation of a ‘consolidated transactional reporting system.’ NetCoalition I, at 535 (quoting H.R. Rep. No. 94–229, at 92 (1975), as reprinted in 1975 U.S.C.C.A.N. 321, 323). The court agreed with the Commission’s conclusion that “Congress intended that ‘competitive forces should dictate the services and practices that constitute the U.S. national market system for trading equity securities.’ ”<sup>13</sup>

The Court in NetCoalition I, while upholding the Commission’s conclusion that competitive forces may be relied upon to establish the fairness of prices, nevertheless concluded that the record in that case did not adequately support the Commission’s conclusions as to the competitive nature of the market for NYSE Arca’s data product at issue in that case. As explained below in NASDAQ’s Statement on Burden on Competition, however, NASDAQ believes that there is substantial evidence of competition in the marketplace for data that was not in the record in the NetCoalition I

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<sup>13</sup> NetCoalition I, at 535.

case, and that the Commission is entitled to rely upon such evidence in concluding fees are the product of competition, and therefore in accordance with the relevant statutory standards.<sup>14</sup> Moreover, NASDAQ further notes that the product at issue in this filing – a NASDAQ quotation and last sale data product that replicates a subset of the information available through “core” data products whose fees have been reviewed and approved by the SEC – is quite different from the NYSE Arca depth-of-book data product at issue in NetCoalition I. Accordingly, any findings of the court with respect to that product may not be relevant to the product at issue in this filing. As the Commission noted in approving the initial pilot for NASDAQ Basic, all of the information available in NASDAQ Basic is included in the core data feeds made available pursuant to the joint-SRO plans.<sup>15</sup> As the Commission further determined, “the availability of alternatives to NASDAQ Basic significantly affect the terms on which NASDAQ can distribute this market data. In setting the fees for its NASDAQ Basic service, NASDAQ must consider the extent to which market participants would choose one or more alternatives instead of purchasing the exchange’s data.”<sup>16</sup> Thus, to the extent that the fees for core data have been established as reasonable under the Act, it follows that the fees for NASDAQ Basic are also reasonable, since charging unreasonably high fees would cause market

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<sup>14</sup> It should also be noted that Section 916 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (“Dodd-Frank Act”) has amended paragraph (A) of Section 19(b)(3) of the Act, 15 U.S.C. 78s(b)(3), to make it clear that all exchange fees, including fees for market data, may be filed by exchanges on an immediately effective basis. See also NetCoalition v. SEC, 715 F.3d 342 (D.C. Cir. 2013) (“NetCoalition II”) (finding no jurisdiction to review Commission’s non-suspension of immediately effective fee changes).

<sup>15</sup> Securities Exchange Act Release No. 12425 (March 16, 2009), 74 FR 12423, 12425 (March 24, 2009) (SR-NASDAQ-2008-102).

<sup>16</sup> Id. at 12425.

participants to rely solely on core data or purchase proprietary products offered by other exchanges rather than purchasing NASDAQ Basic.

Moreover, as discussed in the order approving the initial pilot, and as further discussed below in NASDAQ's Statement on Burden on Competition, data products such as NASDAQ Basic are a means by which exchanges compete to attract order flow. To the extent that exchanges are successful in such competition, they earn trading revenues and also enhance the value of their data products by increasing the amount of data they are able to provide. Conversely, to the extent that exchanges are unsuccessful, the inputs needed to add value to data products are diminished. Accordingly, the need to compete for order flow places substantial pressure upon exchanges to keep their fees for both executions and data reasonable.

The proposed changes do not alter the reasonableness of the fees for NASDAQ Basic. Although the per subscriber fees for professional users of NASDAQ Basic are increasing, such fees continue to reflect the value of NASDAQ Basic as a subset of the data provided through core data products.<sup>17</sup> Moreover, the fees in question have not changed since NASDAQ Basic's introduction in 2009, and since that time, numerous enhancements have been made to the product, as described above in the section of the proposed rule change discussing its purpose. In addition, the proposed enterprise license for Professional Subscribers and the proposed netting rules will provide means to mitigate the effect of the fee increase.

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<sup>17</sup> Professional Subscriber fees for core data under all of the SIP plans range from \$67 to \$97 per month, while Professional Subscriber fees for all three components of NASDAQ Basic would be \$26 per month.

The changed fees for NASDAQ Basic also continue to reflect an equitable allocation and continue not to be unfairly discriminatory, because NASDAQ Basic is a voluntary product for which market participants can readily substitute core data feeds that provide additional quotation and last sale information not available through NASDAQ Basic. Accordingly, NASDAQ is constrained from pricing the product in a manner that would be inequitable or unfairly discriminatory. The distinction between fees for Professional and Non-Professional Subscribers is consistent with the distinction made under fees for core data, and the applicable fees are lower than applicable fees for core data to reflect the lesser quantum of data made available. Moreover, the proposed enterprise license will help to ensure that fees for professional users are not inequitable or unfairly discriminatory, because they will be subject to limitations that will enable broker-dealers with large numbers of subscribers to moderate the fees that they would otherwise be required to pay. The proposed netting feature will also moderate fees by limiting the extent to which a Subscriber is charged for multiple uses of the data.

4. Self-Regulatory Organization's Statement on Burden on Competition

NASDAQ does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act, as amended. NASDAQ's ability to price NASDAQ Basic is constrained by (1) competition among exchanges, other trading platforms, and TRFs that compete with each other in a variety of dimensions; (2) the existence of inexpensive real-time consolidated data and market-specific data and free delayed consolidated data; and (3) the inherent contestability of the market for proprietary data.

The market for proprietary data products is currently competitive and inherently contestable because there is fierce competition for the inputs necessary to the creation of

proprietary data and strict pricing discipline for the proprietary products themselves. Numerous exchanges compete with each other for listings, trades, and market data itself, providing virtually limitless opportunities for entrepreneurs who wish to produce and distribute their own market data. This proprietary data is produced by each individual exchange, as well as other entities, in a vigorously competitive market. Similarly, with respect to the TRF data component of NASDAQ Basic, allowing exchanges to operate TRFs has permitted them to earn revenues by providing technology and data in support of the non-exchange segment of the market. This revenue opportunity has also resulted in fierce competition between the two current TRF operators, with both TRFs charging extremely low trade reporting fees and rebating the majority of the revenues they receive from core market data to the parties reporting trades.

Transaction executions and proprietary data products are complementary in that market data is both an input and a byproduct of the execution service. In fact, market data and trade execution are a paradigmatic example of joint products with joint costs.<sup>18</sup> The decision whether and on which platform to post an order will depend on the attributes of the platform where the order can be posted, including the execution fees, data quality and price, and distribution of its data products. Without trade executions, exchange data products cannot exist. Moreover, data products are valuable to many end users only insofar as they provide information that end users expect will assist them or their customers in making trading decisions.

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<sup>18</sup> A complete explanation of the pricing dynamics associated with joint products is presented in a study that NASDAQ originally submitted to the Commission in SR-NASDAQ-2011-010, and which is also submitted as Exhibit 3 to this filing. See Statement of Janusz Ordoover and Gustavo Bamberger at 2-17 (December 29, 2010).

The costs of producing market data include not only the costs of the data distribution infrastructure, but also the costs of designing, maintaining, and operating the exchange's transaction execution platform and the cost of regulating the exchange to ensure its fair operation and maintain investor confidence. The total return that a trading platform earns reflects the revenues it receives from both products and the joint costs it incurs. Moreover, the operation of the exchange is characterized by high fixed costs and low marginal costs. This cost structure is common in content and content distribution industries such as software, where developing new software typically requires a large initial investment (and continuing large investments to upgrade the software), but once the software is developed, the incremental cost of providing that software to an additional user is typically small, or even zero (e.g., if the software can be downloaded over the internet after being purchased).<sup>19</sup> In NASDAQ's case, it is costly to build and maintain a trading platform, but the incremental cost of trading each additional share on an existing platform, or distributing an additional instance of data, is very low. Market information and executions are each produced jointly (in the sense that the activities of trading and placing orders are the source of the information that is distributed) and are each subject to significant scale economies. In such cases, marginal cost pricing is not feasible because if all sales were priced at the margin, NASDAQ would be unable to defray its platform costs of providing the joint products. Similarly, data products cannot make use of TRF trade reports without the raw material of the trade reports themselves, and therefore

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<sup>19</sup> See William J. Baumol and Daniel G. Swanson, "The New Economy and Ubiquitous Competitive Price Discrimination: Identifying Defensible Criteria of Market Power," Antitrust Law Journal, Vol. 70, No. 3 (2003).

necessitate the costs of operating, regulating,<sup>20</sup> and maintaining a trade reporting system, costs that must be covered through the fees charged for use of the facility and sales of associated data.

An exchange's BD customers view the costs of transaction executions and of data as a unified cost of doing business with the exchange. A BD will direct orders to a particular exchange only if the expected revenues from executing trades on the exchange exceed net transaction execution costs and the cost of data that the BD chooses to buy to support its trading decisions (or those of its customers). The choice of data products is, in turn, a product of the value of the products in making profitable trading decisions. If the cost of the product exceeds its expected value, the BD will choose not to buy it.

Moreover, as a BD chooses to direct fewer orders to a particular exchange, the value of the product to that BD decreases, for two reasons. First, the product will contain less information, because executions of the BD's trading activity will not be reflected in it. Second, and perhaps more important, the product will be less valuable to that BD because it does not provide information about the venue to which it is directing its orders. Data from the competing venue to which the BD is directing orders will become correspondingly more valuable.

Similarly, in the case of products such as NASDAQ Basic that may be distributed through market data vendors, the vendors provide price discipline for proprietary data products because they control a means of access to end users. Vendors impose price restraints based upon their business models. For example, vendors such as Bloomberg and Thomson Reuters that assess a surcharge on data they sell may refuse to offer

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<sup>20</sup> It should be noted that the costs of operating the FINRA/NASDAQ TRF borne by NASDAQ include regulatory charges paid by NASDAQ to FINRA.

proprietary products that end users will not purchase in sufficient numbers. Internet portals, such as Google, impose a discipline by providing only data that will enable them to attract “eyeballs” that contribute to their advertising revenue. Retail BDs, such as Charles Schwab and Fidelity, offer their customers proprietary data only if it promotes trading and generates sufficient commission revenue. Although the business models may differ, these vendors’ pricing discipline is the same: they can simply refuse to purchase any proprietary data product that fails to provide sufficient value. Exchanges, TRFs, and other producers of proprietary data products must understand and respond to these varying business models and pricing disciplines in order to market proprietary data products successfully. Moreover, NASDAQ believes that products such as NASDAQ Basic can enhance order flow to NASDAQ by providing more widespread distribution of information about transactions in real time, thereby encouraging wider participation in the market by investors with access to the data through their brokerage firm or other distribution sources. Conversely, the value of such products to distributors and investors decreases if order flow falls, because the products contain less content.

Analyzing the cost of market data distribution in isolation from the cost of all of the inputs supporting the creation of market data will inevitably underestimate the cost of the data. Thus, because it is impossible to create exchange data without a fast, technologically robust, and well-regulated execution system, system costs and regulatory costs affect the price of market data. It would be equally misleading, however, to attribute all of the exchange’s costs to the market data portion of an exchange’s joint product. Rather, all of the exchange’s costs are incurred for the unified purposes of attracting order flow, executing and/or routing orders, and generating and selling data

about market activity. The total return that an exchange earns reflects the revenues it receives from the joint products and the total costs of the joint products. Similarly, the inclusion of trade reporting data in a product such as NASDAQ Basic may assist in attracting customers to the product, thereby assisting in covering the additional costs associated with operating and regulating a TRF.

Competition among trading platforms can be expected to constrain the aggregate return each platform earns from the sale of its joint products, but different platforms may choose from a range of possible, and equally reasonable, pricing strategies as the means of recovering total costs. NASDAQ pays rebates to attract orders, charges relatively low prices for market information and charges relatively high prices for accessing posted liquidity. Other platforms may choose a strategy of paying lower liquidity rebates to attract orders, setting relatively low prices for accessing posted liquidity, and setting relatively high prices for market information. Still others may provide most data free of charge and rely exclusively on transaction fees to recover their costs. Finally, some platforms may incentivize use by providing opportunities for equity ownership, which may allow them to charge lower direct fees for executions and data.

In this environment, there is no economic basis for regulating maximum prices for one of the joint products in an industry in which suppliers face competitive constraints with regard to the joint offering. Such regulation is unnecessary because an “excessive” price for one of the joint products will ultimately have to be reflected in lower prices for other products sold by the firm, or otherwise the firm will experience a loss in the volume of its sales that will be adverse to its overall profitability. In other words, an

unreasonable increase in the price of data will ultimately have to be accompanied by a decrease in the cost of executions, or the volume of both data and executions will fall.

The level of competition and contestability in the market is evident in the numerous alternative venues that compete for order flow, including thirteen SRO markets, as well as internalizing BDs and various forms of alternative trading systems (“ATs”), including dark pools and electronic communication networks (“ECNs”). Each SRO market competes to produce transaction reports via trade executions, and two FINRA-regulated TRFs compete to attract internalized transaction reports. It is common for BDs to further and exploit this competition by sending their order flow and transaction reports to multiple markets, rather than providing them all to a single market. Competitive markets for order flow, executions, and transaction reports provide pricing discipline for the inputs of proprietary data products.

The large number of SROs, TRFs, BDs, and ATs that currently produce proprietary data or are currently capable of producing it provides further pricing discipline for proprietary data products. Each SRO, TRF, AT, and BD is currently permitted to produce proprietary data products, and many currently do or have announced plans to do so, including NASDAQ, NYSE, NYSE MKT, NYSE Arca, BATS, and Direct Edge.

Any AT or BD can combine with any other AT, BD, or multiple ATs or BDs to produce joint proprietary data products. Additionally, order routers and market data vendors can facilitate single or multiple BDs’ production of proprietary data products. The potential sources of proprietary products are virtually limitless. Notably, the potential sources of data include the BDs that submit trade reports to TRFs and that have

the ability to consolidate and distribute their data without the involvement of FINRA or an exchange-operated TRF.

The fact that proprietary data from ATs, BDs, and vendors can by-pass SROs is significant in two respects. First, non-SROs can compete directly with SROs for the production and sale of proprietary data products, as BATS and Arca did before registering as exchanges by publishing proprietary book data on the internet. Second, because a single order or transaction report can appear in a core data product, an SRO proprietary product, and/or a non-SRO proprietary product, the data available in proprietary products is exponentially greater than the actual number of orders and transaction reports that exist in the marketplace. Indeed, in the case of NASDAQ Basic, the data provided through that product appears both in (i) real-time core data products offered by the SIPs for a fee, and (ii) free SIP data products with a 15-minute time delay, and finds a close substitute in similar products of competing venues.

In addition to the competition and price discipline described above, the market for proprietary data products is also highly contestable because market entry is rapid, inexpensive, and profitable. The history of electronic trading is replete with examples of entrants that swiftly grew into some of the largest electronic trading platforms and proprietary data producers: Archipelago, Bloomberg Tradebook, Island, RediBook, Attain, TracECN, BATS Trading and Direct Edge. A proliferation of dark pools and other ATs operate profitably with fragmentary shares of consolidated market volume.

Regulation NMS, by deregulating the market for proprietary data, has increased the contestability of that market. While BDs have previously published their proprietary data individually, Regulation NMS encourages market data vendors and BDs to produce

proprietary products cooperatively in a manner never before possible. Multiple market data vendors already have the capability to aggregate data and disseminate it on a profitable scale, including Bloomberg and Thomson Reuters. In Europe, Markit aggregates and disseminates data from over 50 brokers and multilateral trading facilities.<sup>21</sup>

In the case of TRFs, the rapid entry of several exchanges into this space in 2006-2007 following the development and Commission approval of the TRF structure demonstrates the contestability of this aspect of the market.<sup>22</sup> Given the demand for trade reporting services that is itself a by-product of the fierce competition for transaction executions – characterized notably by a proliferation of ATs and BDs offering internalization – any supra-competitive increase in the fees associated with trade reporting or TRF data would shift trade report volumes from one of the existing TRFs to the other<sup>23</sup> and create incentives for other TRF operators to enter the space. Alternatively, because BDs reporting to TRFs are themselves free to consolidate the market data that they report, the market for over-the-counter data itself, separate and apart from the markets for execution and trade reporting services – is fully contestable.

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<sup>21</sup> <http://www.markit.com/en/products/data/boat/boat-boat-data.page>.

<sup>22</sup> The low cost exit of two TRFs from the market is also evidence of a contestible market, because new entrants are reluctant to enter a market where exit may involve substantial shut-down costs.

<sup>23</sup> It should be noted that the FINRA/NYSE TRF has, in recent weeks, received reports for over 10% of all over-the-counter volume in NMS stocks. In addition, FINRA has announced plans to update its Alternative Display Facility, which is also able to receive over-the-counter trade reports. See Securities Exchange Act Release No. 70048 (July 26, 2013), 78 FR 46652 (August 1, 2013) (SR-FINRA-2013-031).

Moreover, consolidated data provides substantial pricing discipline for proprietary data products that are a subset of the consolidated data stream. Because consolidated data contains marketwide information, it effectively places a cap on the fees assessed for proprietary data (such as quotation and last sale data) that is simply a subset of the consolidated data. The availability provides a powerful form of pricing discipline for proprietary data products that contain data elements that are a subset of the consolidated data, by highlighting the optional nature of proprietary products.

The competitive nature of the market for non-core “sub-set” products such as NASDAQ Basic is borne out by the performance of the market. In May 2008, the internet portal Yahoo! began offering its website viewers real-time last sale data (as well as best quote data) provided by BATS. In June 2008, NASDAQ launched NLS, which was initially subject to an “enterprise cap” of \$100,000 for customers receiving only one of the NLS products, and \$150,000 for customers receiving both products. The majority of NASDAQ’s sales were at the capped level. In early 2009, BATS expanded its offering of free data to include depth-of-book data. Also in early 2009, NYSE Arca announced the launch of a competitive last sale product with an enterprise price of \$30,000 per month. In response, NASDAQ combined the enterprise cap for the NLS products and reduced the cap to \$50,000 (i.e., a reduction of \$100,000 per month). Similarly, the enterprise license and netting option being offered for NASDAQ Basic through this proposed rule change reflects a means by which the overall cost of the product is limited in accordance with the existence of competitive alternatives, including both core and proprietary data.

In this environment, a super-competitive increase in the fees charged for either

transactions or data has the potential to impair revenues from both products. “No one disputes that competition for order flow is ‘fierce’.” NetCoalition I at 539. The existence of fierce competition for order flow implies a high degree of price sensitivity on the part of BDs with order flow, since they may readily reduce costs by directing orders toward the lowest-cost trading venues. A BD that shifted its order flow from one platform to another in response to order execution price differentials would both reduce the value of that platform’s market data and reduce its own need to consume data from the disfavored platform. If a platform increases its market data fees, the change will affect the overall cost of doing business with the platform, and affected BDs will assess whether they can lower their trading costs by directing orders elsewhere and thereby lessening the need for the more expensive data. Similarly, increases in the cost of NASDAQ Basic would impair the willingness of distributors to take a product for which there are numerous alternatives, impacting NASDAQ Basic data revenues, the value of NASDAQ Basic as a tool for attracting order flow, and ultimately, the volume of orders routed to NASDAQ and reported to the FINRA/NASDAQ TRF and the value of its other data products.

Competition has also driven NASDAQ continually to improve its data offerings and to cater to customers’ data needs. The NASDAQ Basic product itself is a product of this competition, offering a subset of core data to users that may not wish to receive or pay for all consolidated data. Moreover, as detailed in the section of this proposed rule change discussing its purpose, NASDAQ has made continual enhancements to the NASDAQ Basic product to ensure that it remains an attractive offering to its customers. Despite these enhancements and a dramatic increase in message traffic, NASDAQ’s fees for professional usage of NASDAQ Basic have hitherto remained flat.

The existence of numerous alternatives to NASDAQ Basic, including real-time consolidated data, free delayed consolidated data, and proprietary data from other sources ensures that NASDAQ cannot set unreasonable fees, or fees that are unreasonably discriminatory, without losing business to these alternatives. Accordingly, NASDAQ believes that the acceptance of the NASDAQ Basic product in the marketplace demonstrates the consistency of these fees with applicable statutory standards. Likewise, the fee changes proposed herein will be subject to these same competitive forces. If the proposed fee increase is excessive, or if the proposals for an enterprise license and netting are unattractive to market participants, only NASDAQ will suffer, since its customers will merely migrate to competitive alternatives.

5. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others

Written comments were neither solicited nor received.

6. Extension of Time Period for Commission Action

The Exchange does not consent to an extension of the time period for Commission action.

7. Basis for Summary Effectiveness Pursuant to Section 19(b)(3) or for Accelerated Effectiveness Pursuant to Section 19(b)(2)

Pursuant to Section 19(b)(3)(A)(ii) of the Act,<sup>24</sup> NASDAQ has designated this proposal as establishing or changing a due, fee, or other charge imposed by the self-regulatory organization on any person, whether or not the person is a member of the self-regulatory organization, which renders the proposed rule change effective upon filing.

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<sup>24</sup> 15 U.S.C. 78s(b)(3)(A)(ii).

8. Proposed Rule Change Based on Rules of Another Self-Regulatory Organization or of the Commission

Not applicable.

9. Security-Based Swap Submissions Filed Pursuant to Section 3C of the Act

Not applicable.

10. Advanced Notices Filed Pursuant to Section 806(e) of the Payment, Clearing and Settlement Supervision Act

Not applicable.

11. Exhibits

1. Completed notice of proposed rule change for publication in the Federal Register.

3. Statement of Janusz Ordover and Gustavo Bamberger, Compass Lexicon LLC, dated December 29, 2010.

5. Text of the proposed rule change.

**EXHIBIT 1**

SECURITIES AND EXCHANGE COMMISSION  
(Release No. 34- ; File No. SR-NASDAQ-2014-011)

January \_\_, 2014

Self-Regulatory Organizations; The NASDAQ Stock Market LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change to Modify Fees for NASDAQ Basic

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”),<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> notice is hereby given that on January 27, 2014, The NASDAQ Stock Market LLC (“NASDAQ” or the “Exchange”) filed with the Securities and Exchange Commission (“Commission”) a proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization’s Statement of the Terms of Substance of the Proposed Rule Change

NASDAQ is proposing modify fees for the NASDAQ Basic data product. The proposal, which modifies monthly fees, is effective for the month of January 2014 and subsequent months. The text of the proposed rule change is available on the Exchange’s Website at <http://nasdaq.cchwallstreet.com>, at the principal office of the Exchange, and at the Commission’s Public Reference Room.

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<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> 17 CFR 240.19b-4.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of those statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant parts of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

NASDAQ Basic is a proprietary data product that provides best bid and offer information from the NASDAQ Market Center and last sale transaction reports from the NASDAQ Market Center and from the FINRA/NASDAQ Trade Reporting Facility ("FINRA/NASDAQ TRF"). As such, NASDAQ Basic provides a subset of the "core" quotation and last sale data provided by securities information processors ("SIPs") under the CQ/CT Plan and the NASDAQ UTP Plan. In this filing, NASDAQ is proposing to (i) increase the Subscriber fees charged with respect to "Professional" Subscribers to the product, for the first time since the introduction of the product in 2009, (ii) introduce a new enterprise license for Professional Subscribers; and (iii) add rules to allow "netting," in certain instances, by Subscribers with multiple means of access to NASDAQ Basic, in order to reduce the total number of Subscribers for which a fee will be charged.

NASDAQ Basic contains three separate components, which may be purchased individually or in combination: (i) NASDAQ Basic for NASDAQ, which contains the best bid and offer on the NASDAQ Market Center and last sale transaction reports for

NASDAQ and the FINRA/NASDAQ TRF for NASDAQ-listed stocks, (ii) NASDAQ Basic for NYSE, which covers NYSE-listed stocks, and (iii) NASDAQ Basic for NYSE MKT, which covers stocks listed on NYSE MKT and other listing venues whose quotes and trade reports are disseminated on Tape B.<sup>3</sup>

The fee structure for NASDAQ Basic features a fee for Professional Subscribers and a reduced fee for Non-Professional Subscribers.<sup>4</sup> The current monthly fees for Non-Professional Subscribers, which are not being modified, are \$0.50 per Subscriber for NASDAQ Basic for NASDAQ, \$0.25 per Subscriber for NASDAQ Basic for NYSE, and \$0.25 per Subscriber for NASDAQ Basic for NYSE MKT. The current monthly fees for Professional Subscribers are \$10 per Subscriber for NASDAQ Basic for NASDAQ, \$5 per Subscriber for NASDAQ Basic for NYSE, and \$5 per Subscriber for NASDAQ Basic for NYSE MKT. As discussed in more detail below, NASDAQ is proposing to increase the Professional Subscriber fees to \$13, \$6.50, and \$6.50, respectively. For use cases that do not require a monthly subscription for unlimited usage, there is a Per Query option,

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<sup>3</sup> NASDAQ is modifying the text of Rule 7047 to make it clear that NASDAQ Basic for NYSE MKT includes information for all Tape B listing venues and to use consistent terminology to describe the three data elements of NASDAQ Basic throughout the rule.

<sup>4</sup> A “Non-Professional Subscriber” is “a natural person who is not (i) registered or qualified in any capacity with the Commission, the Commodity Futures Trading Commission, any state securities agency, any securities exchange or association, or any commodities or futures contract market or association; (ii) engaged as an “investment adviser” as that term is defined in Section 201(11) of the Investment Advisers Act of 1940 (whether or not registered or qualified under that Act); or (iii) employed by a bank or other organization exempt from registration under federal or state securities laws to perform functions that would require registration or qualification if such functions were performed for an organization not so exempt.” A “Professional Subscriber” is “any Subscriber other than a Non-Professional Subscriber.” Although these definitions are currently applicable to Rule 7047 through incorporation by reference, NASDAQ is adding them directly to the rule to enhance its clarity.

with a fee of \$0.0025 for NASDAQ Basic for NASDAQ, \$0.0015 for NASDAQ Basic for NYSE, and \$0.0015 for NASDAQ Basic for NYSE MKT.

Distributors<sup>5</sup> of NASDAQ Basic may also be assessed a monthly Distributor Fee. The fee is \$1,500 per month for either internal or external distribution; however, a credit for Subscriber or Per Query fees may be applied against the Distributor Fee at the Distributor's request.

As an alternative to monthly Subscriber fees for Non-Professional Subscribers, NASDAQ also offers an enterprise license under which a broker-dealer may distribute NASDAQ Basic to an unlimited number of Non-Professional Subscribers with whom the broker-dealer has a brokerage relationship at a rate of \$100,000 per month (as well as the applicable monthly Distributor fee). In addition, a Distributor of data derived from NASDAQ Basic (but not NASDAQ Basic itself) may pay a fee of \$1,500 per month (plus the applicable monthly Distributor fee) to distribute the derived data to an unlimited number of Non-Professional Subscribers. This type of Distributor will typically distribute data to a large number of downstream customers through web-based applications.

The proposed increase in Professional Subscriber fees would constitute the first such increase since NASDAQ Basic was introduced in 2009. Since that time, NASDAQ

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<sup>5</sup> The definition of the term "Distributor" is being added directly to Rule 7047 to enhance the rule's clarity. The term "refers to any entity that receives NASDAQ Basic data directly from NASDAQ or indirectly through another entity and then distributes it to one or more Subscribers." Distributors may either be "Internal Distributors", which are "Distributors that receive NASDAQ Basic data and then distribute that data to one or more Subscribers within the Distributor's own entity," or "External Distributors", which are "Distributors that receive NASDAQ Basic data and then distribute that data to one or more Subscribers outside the Distributor's own entity."

has continually enhanced the product through capacity upgrades, in keeping with increases in demand for the product; during this period, the network capacity for NASDAQ Basic has increased from a 15 Mb feed to the current 84 Mb feed.

Additionally, NASDAQ has enhanced the product in numerous respects. These have included the addition of messages to indicate the start and end time of the NASDAQ Market Center's system day and the end of regular trading hours; a new IPO message for NASDAQ-listed securities to relay the quotation release time as well as the IPO price to be used for intraday net change calculations; an enhanced symbol directory with limit up/limit down reference price tiers; dissemination of retail liquidity identifiers under NASDAQ Rule 4780; market-wide circuit breaker decline levels and status information; enhanced sale condition modifiers in accordance with changes made to data disseminated by the SIPs; support for a 4 a.m. start to NASDAQ's trading day; support for single stock trading pauses; latency monitoring; and clearer differentiation between NYSE and NYSE MKT trades in the data stream.

NASDAQ further notes that the professional fees for "core" quote and last-sale data provided under the NASDAQ UTP Plan were increased, effective January 2014, from \$20 to \$23 per Subscriber per month.<sup>6</sup> Similar fees under the CQ/CT Plans are \$24 per subscriber per month for securities listed on NYSE MKT and other Tape B securities, and range from \$20 to \$50 per month for NYSE-listed securities. Accordingly, NASDAQ believes that the change in NASDAQ Basic fees is also warranted as a means of ensuring that the fees for NASDAQ Basic accurately reflect the value of NASDAQ Basic data as a subset of "core" data available from the SIPs, thereby avoiding distortions

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<sup>6</sup> Securities Exchange Act Release No. 70953 (November 27, 2013), 78 FR 72932 (December 4, 2013) (File No. S7-24-89).

in demand for core data that might result from fees that do not accurately reflect NASDAQ Basic's value.

However, to mitigate the effect of the fee increase on Distributors and Subscribers, NASDAQ is proposing two additional changes. First, NASDAQ is proposing to introduce a net reporting option for Distributors to reduce the overall number of internal Professional Subscribers deemed to be fee liable with respect to "Display Usage" of NASDAQ Basic.<sup>7</sup> This option is similar to a net reporting option recently introduced under the NASDAQ UTP Plan.<sup>8</sup> Under the proposed netting rules:

- A Subscriber that receives access to NASDAQ Basic through multiple products controlled by an Internal Distributor will be considered one Subscriber. Thus, if a broker-dealer acts as a Distributor of NASDAQ Basic in multiple forms to its employees, each employee would be considered one Subscriber.
- A Subscriber that receives access to NASDAQ Basic through multiple products controlled by one External Distributor will be considered one Subscriber. Thus, if a broker-dealer arranges for its employees to receive access to multiple NASDAQ Basic products provided by a single vendor, each employee would be considered one Subscriber.
- A Subscriber that receives access to NASDAQ Basic through one or more products controlled by an Internal Distributor and also one or more products

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<sup>7</sup> As reflected in a new definition being added to Rule 7047, "Display Usage" means "any method of accessing NASDAQ Basic data that involves the display of such data on a screen or other visualization mechanism for access or use by a natural person or persons." Netting does not apply to uses other than Display Usage (i.e., use by an automated device without visual access by natural persons).

<sup>8</sup> Securities Exchange Act Release No. 70953 (November 27, 2013), 78 FR 72932 (December 4, 2013) (File No. S7-24-89).

controlled by one External Distributor will be considered one Subscriber. Thus, if the broker-dealer provides employees with access through its own product(s) and through products from a single vendor, each employee would still be considered one Subscriber.

- A Subscriber that receives access to NASDAQ Basic through one or more products controlled by an Internal Distributor and also products controlled by multiple External Distributors will be treated as one Subscriber with respect to the products controlled by the Internal Distributor and one of the External Distributors, and will be treated as an additional Subscriber for each additional External Distributor. Thus, a Subscriber receiving products through an Internal Distributor and two External Distributors will be treated as two Subscribers. Put another way, access through an Internal Distributor may be netted against access through one External Distributor, but two External Distributors may not be netted.

Distributors benefitting from net reporting must demonstrate adequate internal controls for identifying, monitoring, and reporting all usage. The burden will be on the Distributor to demonstrate that particular instances of netting are justified.

Second, NASDAQ is proposing to offer a new enterprise license for Professional Subscribers. Under the enterprise license, a broker-dealer may distribute NASDAQ Basic for NASDAQ, NASDAQ Basic for NYSE, and NASDAQ Basic for NYSE MKT for a flat fee of \$365,000 per month; provided, however, that if the broker-dealer obtains the license with respect to usage of NASDAQ Basic provided by an External Distributor that controls display of the product, the fee will be \$365,000 per month for up to 16,000 internal Professional Subscribers, plus \$2 for each additional internal Professional

Subscriber over 16,000.<sup>9</sup> Thus, given the total proposed modified fee of \$26 per Subscriber per month for receiving all three components of NASDAQ Basic, the option will reduce costs for broker-dealers with more than 14,038 Internal Subscribers ( $\$365,000 \div \$26$ ). A broker-dealer that purchases an enterprise license will also be entitled to receive, at no additional charge, access to NASDAQ Last Sale (“NLS”) data for its own stock price and the stock price of up to ten of its competitors or peers, for display use on the broker-dealer’s internal website. NLS provides, in real time, last sale information for stocks listed on NASDAQ, NYSE, and other listing venues, as reported by the NASDAQ Market Center or reported to the FINRA/NASDAQ TRF.

## 2. Statutory Basis

NASDAQ believes that the proposed rule change is consistent with the provisions of Section 6 of the Act<sup>10</sup> in general, and with Sections 6(b)(4) and (5) of the Act<sup>11</sup> in particular, in that it provides for the equitable allocation of reasonable dues, fees and other charges among recipients of NASDAQ data and is not designed to permit unfair discrimination between them. In adopting Regulation NMS, the Commission granted self-regulatory organizations (“SROs”) and broker-dealers (“BDs”) increased authority and flexibility to offer new and unique market data to the public. It was believed that this authority would expand the amount of data available to consumers, and also spur innovation and competition for the provision of market data. NASDAQ believes that its

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<sup>9</sup> The \$2 fee is necessary to defray additional costs incurred by NASDAQ when distributing NASDAQ Basic through an External Distributor that controls display of the product, costs which NASDAQ would not otherwise be able to recoup under an enterprise license arrangement.

<sup>10</sup> 15 U.S.C. 78f.

<sup>11</sup> 15 U.S.C. 78f(b)(4), (5).

NASDAQ Basic market data product is precisely the sort of market data product that the Commission envisioned when it adopted Regulation NMS. The Commission concluded that Regulation NMS—by deregulating the market in proprietary data—would itself further the Act’s goals of facilitating efficiency and competition:

[E]fficiency is promoted when broker-dealers who do not need the data beyond the prices, sizes, market center identifications of the NBBO and consolidated last sale information are not required to receive (and pay for) such data. The Commission also believes that efficiency is promoted when broker-dealers may choose to receive (and pay for) additional market data based on their own internal analysis of the need for such data.<sup>12</sup>

By removing unnecessary regulatory restrictions on the ability of exchanges to sell their own data, Regulation NMS advanced the goals of the Act and the principles reflected in its legislative history. If the free market should determine whether proprietary data is sold at all, it follows that the price at which such data is sold should be set by the market as well. NASDAQ Basic exemplifies the optional nature of proprietary data, since, depending on a customer’s specific goals, it may opt to purchase core SIP data or only the subset provided through NASDAQ Basic. Moreover, as discussed in more detail below, the price that NASDAQ is able to charge is constrained by the existence of substitutes in the form of SIP data and competitive products offered by other SROs.

The decision of the United States Court of Appeals for the District of Columbia Circuit in NetCoalition v. SEC, 615 F.3d 525 (D.C. Cir. 2010) (“NetCoalition I”), upheld

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<sup>12</sup> Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37496 (June 29, 2005).

the Commission's reliance upon competitive markets to set reasonable and equitably allocated fees for market data. "In fact, the legislative history indicates that the Congress intended that the market system 'evolve through the interplay of competitive forces as unnecessary regulatory restrictions are removed' and that the SEC wield its regulatory power 'in those situations where competition may not be sufficient,' such as in the creation of a 'consolidated transactional reporting system.' NetCoalition I, at 535 (quoting H.R. Rep. No. 94-229, at 92 (1975), as reprinted in 1975 U.S.C.C.A.N. 321, 323). The court agreed with the Commission's conclusion that "Congress intended that 'competitive forces should dictate the services and practices that constitute the U.S. national market system for trading equity securities.' ”<sup>13</sup>

The Court in NetCoalition I, while upholding the Commission's conclusion that competitive forces may be relied upon to establish the fairness of prices, nevertheless concluded that the record in that case did not adequately support the Commission's conclusions as to the competitive nature of the market for NYSE Arca's data product at issue in that case. As explained below in NASDAQ's Statement on Burden on Competition, however, NASDAQ believes that there is substantial evidence of competition in the marketplace for data that was not in the record in the NetCoalition I case, and that the Commission is entitled to rely upon such evidence in concluding fees are the product of competition, and therefore in accordance with the relevant statutory standards.<sup>14</sup> Moreover, NASDAQ further notes that the product at issue in this filing – a

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<sup>13</sup> NetCoalition I, at 535.

<sup>14</sup> It should also be noted that Section 916 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 ("Dodd-Frank Act") has amended paragraph (A) of Section 19(b)(3) of the Act, 15 U.S.C. 78s(b)(3), to make it clear that all exchange fees, including fees for market data, may be filed by exchanges

NASDAQ quotation and last sale data product that replicates a subset of the information available through “core” data products whose fees have been reviewed and approved by the SEC – is quite different from the NYSE Arca depth-of-book data product at issue in NetCoalition I. Accordingly, any findings of the court with respect to that product may not be relevant to the product at issue in this filing. As the Commission noted in approving the initial pilot for NASDAQ Basic, all of the information available in NASDAQ Basic is included in the core data feeds made available pursuant to the joint-SRO plans.<sup>15</sup> As the Commission further determined, “the availability of alternatives to NASDAQ Basic significantly affect the terms on which NASDAQ can distribute this market data. In setting the fees for its NASDAQ Basic service, NASDAQ must consider the extent to which market participants would choose one or more alternatives instead of purchasing the exchange’s data.”<sup>16</sup> Thus, to the extent that the fees for core data have been established as reasonable under the Act, it follows that the fees for NASDAQ Basic are also reasonable, since charging unreasonably high fees would cause market participants to rely solely on core data or purchase proprietary products offered by other exchanges rather than purchasing NASDAQ Basic.

Moreover, as discussed in the order approving the initial pilot, and as further discussed below in NASDAQ’s Statement on Burden on Competition, data products such as NASDAQ Basic are a means by which exchanges compete to attract order flow. To

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on an immediately effective basis. See also NetCoalition v. SEC, 715 F.3d 342 (D.C. Cir. 2013) (“NetCoalition II”) (finding no jurisdiction to review Commission’s non-suspension of immediately effective fee changes).

<sup>15</sup> Securities Exchange Act Release No. 12425 (March 16, 2009), 74 FR 12423, 12425 (March 24, 2009) (SR-NASDAQ-2008-102).

<sup>16</sup> Id. at 12425.

the extent that exchanges are successful in such competition, they earn trading revenues and also enhance the value of their data products by increasing the amount of data they are able to provide. Conversely, to the extent that exchanges are unsuccessful, the inputs needed to add value to data products are diminished. Accordingly, the need to compete for order flow places substantial pressure upon exchanges to keep their fees for both executions and data reasonable.

The proposed changes do not alter the reasonableness of the fees for NASDAQ Basic. Although the per subscriber fees for professional users of NASDAQ Basic are increasing, such fees continue to reflect the value of NASDAQ Basic as a subset of the data provided through core data products.<sup>17</sup> Moreover, the fees in question have not changed since NASDAQ Basic's introduction in 2009, and since that time, numerous enhancements have been made to the product, as described above in the section of the proposed rule change discussing its purpose. In addition, the proposed enterprise license for Professional Subscribers and the proposed netting rules will provide means to mitigate the effect of the fee increase.

The changed fees for NASDAQ Basic also continue to reflect an equitable allocation and continue not to be unfairly discriminatory, because NASDAQ Basic is a voluntary product for which market participants can readily substitute core data feeds that provide additional quotation and last sale information not available through NASDAQ Basic. Accordingly, NASDAQ is constrained from pricing the product in a manner that would be inequitable or unfairly discriminatory. The distinction between fees for

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<sup>17</sup> Professional Subscriber fees for core data under all of the SIP plans range from \$67 to \$97 per month, while Professional Subscriber fees for all three components of NASDAQ Basic would be \$26 per month.

Professional and Non-Professional Subscribers is consistent with the distinction made under fees for core data, and the applicable fees are lower than applicable fees for core data to reflect the lesser quantum of data made available. Moreover, the proposed enterprise license will help to ensure that fees for professional users are not inequitable or unfairly discriminatory, because they will be subject to limitations that will enable broker-dealers with large numbers of subscribers to moderate the fees that they would otherwise be required to pay. The proposed netting feature will also moderate fees by limiting the extent to which a Subscriber is charged for multiple uses of the data.

B. Self-Regulatory Organization's Statement on Burden on Competition

NASDAQ does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act, as amended. NASDAQ's ability to price NASDAQ Basic is constrained by (1) competition among exchanges, other trading platforms, and TRFs that compete with each other in a variety of dimensions; (2) the existence of inexpensive real-time consolidated data and market-specific data and free delayed consolidated data; and (3) the inherent contestability of the market for proprietary data.

The market for proprietary data products is currently competitive and inherently contestable because there is fierce competition for the inputs necessary to the creation of proprietary data and strict pricing discipline for the proprietary products themselves. Numerous exchanges compete with each other for listings, trades, and market data itself, providing virtually limitless opportunities for entrepreneurs who wish to produce and distribute their own market data. This proprietary data is produced by each individual exchange, as well as other entities, in a vigorously competitive market. Similarly, with respect to the TRF data component of NASDAQ Basic, allowing exchanges to operate

TRFs has permitted them to earn revenues by providing technology and data in support of the non-exchange segment of the market. This revenue opportunity has also resulted in fierce competition between the two current TRF operators, with both TRFs charging extremely low trade reporting fees and rebating the majority of the revenues they receive from core market data to the parties reporting trades.

Transaction executions and proprietary data products are complementary in that market data is both an input and a byproduct of the execution service. In fact, market data and trade execution are a paradigmatic example of joint products with joint costs.<sup>18</sup> The decision whether and on which platform to post an order will depend on the attributes of the platform where the order can be posted, including the execution fees, data quality and price, and distribution of its data products. Without trade executions, exchange data products cannot exist. Moreover, data products are valuable to many end users only insofar as they provide information that end users expect will assist them or their customers in making trading decisions.

The costs of producing market data include not only the costs of the data distribution infrastructure, but also the costs of designing, maintaining, and operating the exchange's transaction execution platform and the cost of regulating the exchange to ensure its fair operation and maintain investor confidence. The total return that a trading platform earns reflects the revenues it receives from both products and the joint costs it incurs. Moreover, the operation of the exchange is characterized by high fixed costs and

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<sup>18</sup> A complete explanation of the pricing dynamics associated with joint products is presented in a study that NASDAQ originally submitted to the Commission in SR-NASDAQ-2011-010, and which is also submitted as Exhibit 3 to this filing. See Statement of Janusz Ordoover and Gustavo Bamberger at 2-17 (December 29, 2010).

low marginal costs. This cost structure is common in content and content distribution industries such as software, where developing new software typically requires a large initial investment (and continuing large investments to upgrade the software), but once the software is developed, the incremental cost of providing that software to an additional user is typically small, or even zero (e.g., if the software can be downloaded over the internet after being purchased).<sup>19</sup> In NASDAQ's case, it is costly to build and maintain a trading platform, but the incremental cost of trading each additional share on an existing platform, or distributing an additional instance of data, is very low. Market information and executions are each produced jointly (in the sense that the activities of trading and placing orders are the source of the information that is distributed) and are each subject to significant scale economies. In such cases, marginal cost pricing is not feasible because if all sales were priced at the margin, NASDAQ would be unable to defray its platform costs of providing the joint products. Similarly, data products cannot make use of TRF trade reports without the raw material of the trade reports themselves, and therefore necessitate the costs of operating, regulating,<sup>20</sup> and maintaining a trade reporting system, costs that must be covered through the fees charged for use of the facility and sales of associated data.

An exchange's BD customers view the costs of transaction executions and of data as a unified cost of doing business with the exchange. A BD will direct orders to a particular exchange only if the expected revenues from executing trades on the exchange

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<sup>19</sup> See William J. Baumol and Daniel G. Swanson, "The New Economy and Ubiquitous Competitive Price Discrimination: Identifying Defensible Criteria of Market Power," Antitrust Law Journal, Vol. 70, No. 3 (2003).

<sup>20</sup> It should be noted that the costs of operating the FINRA/NASDAQ TRF borne by NASDAQ include regulatory charges paid by NASDAQ to FINRA.

exceed net transaction execution costs and the cost of data that the BD chooses to buy to support its trading decisions (or those of its customers). The choice of data products is, in turn, a product of the value of the products in making profitable trading decisions. If the cost of the product exceeds its expected value, the BD will choose not to buy it.

Moreover, as a BD chooses to direct fewer orders to a particular exchange, the value of the product to that BD decreases, for two reasons. First, the product will contain less information, because executions of the BD's trading activity will not be reflected in it. Second, and perhaps more important, the product will be less valuable to that BD because it does not provide information about the venue to which it is directing its orders. Data from the competing venue to which the BD is directing orders will become correspondingly more valuable.

Similarly, in the case of products such as NASDAQ Basic that may be distributed through market data vendors, the vendors provide price discipline for proprietary data products because they control a means of access to end users. Vendors impose price restraints based upon their business models. For example, vendors such as Bloomberg and Thomson Reuters that assess a surcharge on data they sell may refuse to offer proprietary products that end users will not purchase in sufficient numbers. Internet portals, such as Google, impose a discipline by providing only data that will enable them to attract "eyeballs" that contribute to their advertising revenue. Retail BDs, such as Charles Schwab and Fidelity, offer their customers proprietary data only if it promotes trading and generates sufficient commission revenue. Although the business models may differ, these vendors' pricing discipline is the same: they can simply refuse to purchase any proprietary data product that fails to provide sufficient value. Exchanges, TRFs, and

other producers of proprietary data products must understand and respond to these varying business models and pricing disciplines in order to market proprietary data products successfully. Moreover, NASDAQ believes that products such as NASDAQ Basic can enhance order flow to NASDAQ by providing more widespread distribution of information about transactions in real time, thereby encouraging wider participation in the market by investors with access to the data through their brokerage firm or other distribution sources. Conversely, the value of such products to distributors and investors decreases if order flow falls, because the products contain less content.

Analyzing the cost of market data distribution in isolation from the cost of all of the inputs supporting the creation of market data will inevitably underestimate the cost of the data. Thus, because it is impossible to create exchange data without a fast, technologically robust, and well-regulated execution system, system costs and regulatory costs affect the price of market data. It would be equally misleading, however, to attribute all of the exchange's costs to the market data portion of an exchange's joint product. Rather, all of the exchange's costs are incurred for the unified purposes of attracting order flow, executing and/or routing orders, and generating and selling data about market activity. The total return that an exchange earns reflects the revenues it receives from the joint products and the total costs of the joint products. Similarly, the inclusion of trade reporting data in a product such as NASDAQ Basic may assist in attracting customers to the product, thereby assisting in covering the additional costs associated with operating and regulating a TRF.

Competition among trading platforms can be expected to constrain the aggregate return each platform earns from the sale of its joint products, but different platforms may

choose from a range of possible, and equally reasonable, pricing strategies as the means of recovering total costs. NASDAQ pays rebates to attract orders, charges relatively low prices for market information and charges relatively high prices for accessing posted liquidity. Other platforms may choose a strategy of paying lower liquidity rebates to attract orders, setting relatively low prices for accessing posted liquidity, and setting relatively high prices for market information. Still others may provide most data free of charge and rely exclusively on transaction fees to recover their costs. Finally, some platforms may incentivize use by providing opportunities for equity ownership, which may allow them to charge lower direct fees for executions and data.

In this environment, there is no economic basis for regulating maximum prices for one of the joint products in an industry in which suppliers face competitive constraints with regard to the joint offering. Such regulation is unnecessary because an “excessive” price for one of the joint products will ultimately have to be reflected in lower prices for other products sold by the firm, or otherwise the firm will experience a loss in the volume of its sales that will be adverse to its overall profitability. In other words, an unreasonable increase in the price of data will ultimately have to be accompanied by a decrease in the cost of executions, or the volume of both data and executions will fall.

The level of competition and contestability in the market is evident in the numerous alternative venues that compete for order flow, including thirteen SRO markets, as well as internalizing BDs and various forms of alternative trading systems (“ATSS”), including dark pools and electronic communication networks (“ECNs”). Each SRO market competes to produce transaction reports via trade executions, and two FINRA-regulated TRFs compete to attract internalized transaction reports. It is common

for BDs to further and exploit this competition by sending their order flow and transaction reports to multiple markets, rather than providing them all to a single market. Competitive markets for order flow, executions, and transaction reports provide pricing discipline for the inputs of proprietary data products.

The large number of SROs, TRFs, BDs, and ATSS that currently produce proprietary data or are currently capable of producing it provides further pricing discipline for proprietary data products. Each SRO, TRF, ATS, and BD is currently permitted to produce proprietary data products, and many currently do or have announced plans to do so, including NASDAQ, NYSE, NYSE MKT, NYSE Arca, BATS, and Direct Edge.

Any ATS or BD can combine with any other ATS, BD, or multiple ATSS or BDs to produce joint proprietary data products. Additionally, order routers and market data vendors can facilitate single or multiple BDs' production of proprietary data products. The potential sources of proprietary products are virtually limitless. Notably, the potential sources of data include the BDs that submit trade reports to TRFs and that have the ability to consolidate and distribute their data without the involvement of FINRA or an exchange-operated TRF.

The fact that proprietary data from ATSS, BDs, and vendors can by-pass SROs is significant in two respects. First, non-SROs can compete directly with SROs for the production and sale of proprietary data products, as BATS and Arca did before registering as exchanges by publishing proprietary book data on the internet. Second, because a single order or transaction report can appear in a core data product, an SRO proprietary product, and/or a non-SRO proprietary product, the data available in

proprietary products is exponentially greater than the actual number of orders and transaction reports that exist in the marketplace. Indeed, in the case of NASDAQ Basic, the data provided through that product appears both in (i) real-time core data products offered by the SIPs for a fee, and (ii) free SIP data products with a 15-minute time delay, and finds a close substitute in similar products of competing venues.

In addition to the competition and price discipline described above, the market for proprietary data products is also highly contestable because market entry is rapid, inexpensive, and profitable. The history of electronic trading is replete with examples of entrants that swiftly grew into some of the largest electronic trading platforms and proprietary data producers: Archipelago, Bloomberg Tradebook, Island, RediBook, Attain, TracECN, BATS Trading and Direct Edge. A proliferation of dark pools and other ATs operate profitably with fragmentary shares of consolidated market volume.

Regulation NMS, by deregulating the market for proprietary data, has increased the contestability of that market. While BDs have previously published their proprietary data individually, Regulation NMS encourages market data vendors and BDs to produce proprietary products cooperatively in a manner never before possible. Multiple market data vendors already have the capability to aggregate data and disseminate it on a profitable scale, including Bloomberg and Thomson Reuters. In Europe, Markit aggregates and disseminates data from over 50 brokers and multilateral trading facilities.<sup>21</sup>

In the case of TRFs, the rapid entry of several exchanges into this space in 2006-2007 following the development and Commission approval of the TRF structure

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<sup>21</sup> <http://www.markit.com/en/products/data/boat/boat-boat-data.page>.

demonstrates the contestability of this aspect of the market.<sup>22</sup> Given the demand for trade reporting services that is itself a by-product of the fierce competition for transaction executions – characterized notably by a proliferation of ATNs and BDs offering internalization – any supra-competitive increase in the fees associated with trade reporting or TRF data would shift trade report volumes from one of the existing TRFs to the other<sup>23</sup> and create incentives for other TRF operators to enter the space.

Alternatively, because BDs reporting to TRFs are themselves free to consolidate the market data that they report, the market for over-the-counter data itself, separate and apart from the markets for execution and trade reporting services – is fully contestable.

Moreover, consolidated data provides substantial pricing discipline for proprietary data products that are a subset of the consolidated data stream. Because consolidated data contains marketwide information, it effectively places a cap on the fees assessed for proprietary data (such as quotation and last sale data) that is simply a subset of the consolidated data. The availability provides a powerful form of pricing discipline for proprietary data products that contain data elements that are a subset of the consolidated data, by highlighting the optional nature of proprietary products.

The competitive nature of the market for non-core “sub-set” products such as NASDAQ Basic is borne out by the performance of the market. In May 2008, the

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<sup>22</sup> The low cost exit of two TRFs from the market is also evidence of a contestible market, because new entrants are reluctant to enter a market where exit may involve substantial shut-down costs.

<sup>23</sup> It should be noted that the FINRA/NYSE TRF has, in recent weeks, received reports for over 10% of all over-the-counter volume in NMS stocks. In addition, FINRA has announced plans to update its Alternative Display Facility, which is also able to receive over-the-counter trade reports. See Securities Exchange Act Release No. 70048 (July 26, 2013), 78 FR 46652 (August 1, 2013) (SR-FINRA-2013-031).

internet portal Yahoo! began offering its website viewers real-time last sale data (as well as best quote data) provided by BATS. In June 2008, NASDAQ launched NLS, which was initially subject to an “enterprise cap” of \$100,000 for customers receiving only one of the NLS products, and \$150,000 for customers receiving both products. The majority of NASDAQ’s sales were at the capped level. In early 2009, BATS expanded its offering of free data to include depth-of-book data. Also in early 2009, NYSE Arca announced the launch of a competitive last sale product with an enterprise price of \$30,000 per month. In response, NASDAQ combined the enterprise cap for the NLS products and reduced the cap to \$50,000 (i.e., a reduction of \$100,000 per month). Similarly, the enterprise license and netting option being offered for NASDAQ Basic through this proposed rule change reflects a means by which the overall cost of the product is limited in accordance with the existence of competitive alternatives, including both core and proprietary data.

In this environment, a super-competitive increase in the fees charged for either transactions or data has the potential to impair revenues from both products. “No one disputes that competition for order flow is ‘fierce’.” NetCoalition I at 539. The existence of fierce competition for order flow implies a high degree of price sensitivity on the part of BDs with order flow, since they may readily reduce costs by directing orders toward the lowest-cost trading venues. A BD that shifted its order flow from one platform to another in response to order execution price differentials would both reduce the value of that platform’s market data and reduce its own need to consume data from the disfavored platform. If a platform increases its market data fees, the change will affect the overall cost of doing business with the platform, and affected BDs will assess whether they can

lower their trading costs by directing orders elsewhere and thereby lessening the need for the more expensive data. Similarly, increases in the cost of NASDAQ Basic would impair the willingness of distributors to take a product for which there are numerous alternatives, impacting NASDAQ Basic data revenues, the value of NASDAQ Basic as a tool for attracting order flow, and ultimately, the volume of orders routed to NASDAQ and reported to the FINRA/NASDAQ TRF and the value of its other data products.

Competition has also driven NASDAQ continually to improve its data offerings and to cater to customers' data needs. The NASDAQ Basic product itself is a product of this competition, offering a subset of core data to users that may not wish to receive or pay for all consolidated data. Moreover, as detailed in the section of this proposed rule change discussing its purpose, NASDAQ has made continual enhancements to the NASDAQ Basic product to ensure that it remains an attractive offering to its customers. Despite these enhancements and a dramatic increase in message traffic, NASDAQ's fees for professional usage of NASDAQ Basic have hitherto remained flat.

The existence of numerous alternatives to NASDAQ Basic, including real-time consolidated data, free delayed consolidated data, and proprietary data from other sources ensures that NASDAQ cannot set unreasonable fees, or fees that are unreasonably discriminatory, without losing business to these alternatives. Accordingly, NASDAQ believes that the acceptance of the NASDAQ Basic product in the marketplace demonstrates the consistency of these fees with applicable statutory standards. Likewise, the fee changes proposed herein will be subject to these same competitive forces. If the proposed fee increase is excessive, or if the proposals for an enterprise license and netting

are unattractive to market participants, only NASDAQ will suffer, since its customers will merely migrate to competitive alternatives.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants or Others

Written comments were neither solicited nor received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A)(ii) of the Act.<sup>24</sup> At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic comments:

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include File Number SR-NASDAQ-2014-\_\_\_ on the subject line.

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<sup>24</sup> 15 U.S.C. 78s(b)(3)(A)(ii).

Paper comments:

- Send paper comments in triplicate to Elizabeth M. Murphy, Secretary, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549-1090.

All submissions should refer to File Number SR-NASDAQ-2014-\_\_\_\_. This file number should be included on the subject line if e-mail is used.

To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of such filing also will be available for inspection and copying at the principal offices of the Exchange. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly.

All submissions should refer to File Number SR-NASDAQ-2014-\_\_\_\_, and should be submitted on or before [insert date 21 days from publication in the Federal Register].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.<sup>25</sup>

Kevin M. O'Neill  
Deputy Secretary

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<sup>25</sup> 17 CFR 200.30-3(a)(12).

## Statement of Janusz Ordoover and Gustavo Bamberger

### I. INTRODUCTION.

1. I, Janusz Ordoover, am a Professor of Economics at New York University and a former Director of the Masters in Economics Program. I served as the Deputy Assistant Attorney General for Economics in the Antitrust Division of the U.S. Department of Justice in 1991-1992. In that post, I was responsible for formulating and implementing the economic aspects of antitrust policy and enforcement of the United States Government, including co-drafting of the 1992 Agency Horizontal Merger Guidelines. I have also served as an advisor on competition and regulatory matters to the Department of Justice, the Federal Trade Commission, the governments of Poland, Russia, Hungary and Australia, as well as to the World Bank, the Organization for Economic Cooperation and Development, the Inter-American Development Bank, the Australian Competition and Consumer Commission and the New Zealand Commerce Commission. I have served on numerous American Bar Association and International Bar Association panels. I also am a Senior Consultant to Compass Lexecon, an economics consulting firm that specializes in the application of economic analysis to legal and regulatory issues.

2. I have authored and co-authored numerous articles on industrial organization economics, law and economics, antitrust, and intellectual property. In particular, I have authored or co-authored several articles dealing with market power and its abuse. In addition, 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, is attached as Appendix A.

3. I, Gustavo Bamberger, am a Senior Vice President of Compass Lexecon. I received a B.A. degree from Southwestern at Memphis, and M.B.A. and Ph.D. degrees from the University of Chicago Graduate School of Business. I have provided expert testimony on a

variety of economic issues to federal courts, the U.S. Senate, the U.S. Federal Energy Regulatory Commission, the U.S. International Trade Commission, the U.S. Department of Transportation, U.S. state regulatory agencies, the Canadian Competition Tribunal, the New Zealand Commerce Commission and the High Court of New Zealand. A copy of my curriculum vitae is attached as Appendix B.

4. We have been asked by counsel for the NASDAQ Stock Market (“NASDAQ”) to evaluate the extent to which competitive forces constrain NASDAQ’s ability to set prices and terms for “proprietary” data products. We have also been asked to comment from an economic perspective on the proposed “Platform Pricing” schedule that offers discounts to non-institutional investors. Our submission builds upon and expands our earlier comments submitted in connection with a Notice of Proposed Order Approving Proposal by NYSE Arca, Inc. To Establish Fees for Certain Market Data and Request for Comment, Release No. 34-57917, June 4, 2008 released by the Securities and Exchange Commission (“the Commission”).<sup>1</sup>

5. We conclude that NASDAQ is subject to significant competitive forces from other platforms. This means, in particular, that competition for orders constrains NASDAQ’s freedom in setting the prices and other terms of proprietary data products. Competition among trading platforms can be expected to constrain the aggregate return each platform earns from the sale of the array of its products, including the joint products at issue here, which are execution services and proprietary data. In particular, cross-platform competition and the adverse effects of increasing the price of proprietary information on the volume of trading on the platform constrain the pricing of proprietary information. Similarly, overpricing of execution services will reduce the volume of trading on the platform and reduce the production of proprietary information. By definition, information that is proprietary to an exchange cannot be obtained elsewhere, but this does not enable the owner of such information to exercise monopoly power

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1. See Statement of Janusz Ordover and Gustavo Bamberger, filed with the Securities and Exchange Commission, Release No. 34-57917, on behalf of NASDAQ Stock Market, August 1, 2008.

over that information vis-à-vis firms that purchase such information. Besides the fact that similar information can be obtained elsewhere, the feasibility of supra-competitive pricing is constrained by traders' ability to shift their trades elsewhere, which lowers the activity on the exchange and, in the long run, reduces the quality of the information generated by the exchange. The presence of these potent economic forces facing NASDAQ strongly suggests that there is no need to regulate the pricing of proprietary data, including pricing schedules like the proposed "Platform Pricing."

6. In our view, each platform should be free to determine how best to recover the costs – including a return on capital – of its joint products (i.e., execution of trades and proprietary information). This includes "bundling" of discounts across an array of products as contemplated in the "Platform Pricing" proposal being submitted by NASDAQ. Each platform will make its pricing and bundling decisions based on its individual circumstances and the business strategies of the platform. Moreover, these decisions can – and likely will – change over time as the forces of competition reveal whether these strategies are profitable or not. Regulatory forbearance is thus fully warranted in the absence of any showing that the pricing strategies will anti-competitively disadvantage rival platforms and some well-defined customer groups of the investing public.

7. The "Platform Pricing" proposal appears designed to benefit non-professional investors, a group which we understand is predominantly comprised of average (as measured by transaction volumes) individual investors. The discount is provided to NASDAQ members that receive the data and, acting as intermediaries, provide it to their non-professional brokerage customers generally as part of a service. By providing discounts to the intermediaries based on both order activity and qualifying data activity related to non-professional investors, the proposal should encourage the increased provision of data to that set of investors and stimulate their activity on the exchange.

8. As we discuss in this statement, the products at issue in this regulatory proceeding are produced under the conditions of high fixed costs, which are also joint and common to a range of products, and low (or zero) marginal or incremental costs of serving an additional customer. Economics amply demonstrates that marginal cost pricing in an industry with these cost characteristics is not feasible, and some deviations from marginal cost pricing are unavoidable. In general, economic efficiency in these circumstances requires that different customers pay different prices. Economists call this type of pricing structure “differential pricing” or “price discrimination.” Price differentiation in markets with high fixed costs and low incremental costs is common, efficient, and not anticompetitive.

9. One might object perhaps that such pricing is “unfair.” It is important to note that “fairness” is not a core concept of microeconomics or of industrial organization. In this submission, we discuss possible interpretations of a “fairness” standard and conclude that it most plausibly forbids cross subsidies among customers groups and capricious differential treatment that is unrelated to market fundamentals. We find that the rates proposed by NASDAQ in its “Platform Pricing” plan do not violate fairness standards as summarized above.

10. The remainder of our statement is organized as follows. In Section II, we show that competition between trading platforms constrains the price of market data sold by each platform. In Section III, we provide an economic analysis of NASDAQ’s “Platform Pricing” proposal. We summarize our conclusions in Section IV.

## **II. COMPETITION BETWEEN TRADING PLATFORMS CONSTRAINS THE PRICE OF MARKET INFORMATION.**

### **A. Background Information.**

11. Since the Securities Act Amendments of 1975, the volume of equity trading in the United States has increased dramatically. Between 1976 and 1986, for example, total trading in stocks listed on the New York Stock Exchange (“NYSE”) increased from 6.3 billion shares to

42.5 billion shares annually, an increase of about 575 percent. Annual trading in those shares further increased and reached 126.3 billion shares in 1996 and 1.43 trillion shares in 2009.

Thus, between 1976 and 2009, trading in stocks listed on the NYSE increased by a factor of 227 (from 6.3 billion to 1.43 trillion shares per year).<sup>2</sup>

12. Along with the growth of volume, trading in exchange-listed stocks is increasingly occurring over a variety of platforms. In early 2002, for example, approximately 80 percent of trading volume in NYSE-listed stocks took place on the listing exchange (i.e., the NYSE). (For NASDAQ-listed stocks, this percentage was somewhat higher.) By October 2010, only 35.2 percent of trading on NYSE-listed stocks, in the aggregate, took place on the NYSE and NYSE Arca platforms.<sup>3</sup> The NYSE accounted for 22.6 percent of trading in NYSE-listed shares, and NYSE Arca for 12.0 percent.<sup>4</sup> In the same month, NASDAQ's share of trading in NASDAQ-listed securities was 29.5 percent.<sup>5</sup>

13. Furthermore, an exchange's share of trading in a given set of stocks overstates the share of information on total liquidity regarding these stocks that is generated by an exchange because trading platforms only hold a portion of the available liquidity on their books. Other liquidity exists on the trading desks of brokerage firms. We understand that such liquidity is readily available to those firms' clients.

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2. See "Consolidated tape volume by market (thous. of shares) (1976-2003)" and "Volume in NYSE Listed Issues (millions of shares), 2009," [nyxdata.com/factbook](http://nyxdata.com/factbook).

3. See [http://www.nyse.com/pdfs/NYSE\\_Euronext\\_Transactions\\_Data.pdf](http://www.nyse.com/pdfs/NYSE_Euronext_Transactions_Data.pdf).

4. For October 2010, BATS Trading reports "consolidated volume" of 94.8 billion shares on "Tape A" (i.e., the NYSE). Of this amount, BATS Trading reports that the NYSE accounted for 21.4 billion shares (22.6 percent) and NYSE Arca accounted for 11.4 billion shares (12.0 percent). See [http://www.batstrading.com/market\\_summary/](http://www.batstrading.com/market_summary/) (and link to "Download last 30 days" of data). We understand that the NYSE and BATS Trading report trades on a somewhat different basis (e.g., the NYSE-reported consolidated volume for June 2010 for NYSE-listed stocks is about one percent larger than the amount reported by BATS Trading). For this reason, the shares derived from NYSE and BATS Trading data do not align exactly (e.g., the BATS Trading data imply that the aggregate share of the NYSE and NYSE Arca in October 2010 for NYSE-listed stocks was 34.6 percent, while the NYSE reports an aggregate share of 35.2 percent).

5. See <http://www.nasdaqtrader.com/trader.aspx?id=marketshare>.

14. Rapid entry into the platform business is possible, which further constrains any incumbent's ability to act in non-competitive manner. For example, BATS Trading began trading on January 27, 2006.<sup>6</sup> By June 2008, it accounted for 7.5 percent of trading in NYSE-listed stocks and 10.3 percent of trading in NASDAQ-listed stocks.<sup>7</sup>

15. This evidence shows that no trading platform has a "monopoly" on generating market data on shares listed on that platform. As we discuss further later in this report, although any firm can be described as the "exclusive" seller of its branded product, it is not appropriate as a matter of economics to characterize every firm that sells such a product as a "monopolist" in any meaningful sense.

16. In the case of data jointly generated through trading on NASDAQ, the volume and quality of the information depends on the volume of orders and trades on the exchange. Here, by the "quality" of data we mean its informative value. For example, all else equal, the deeper is the "depth-of-book" information on an exchange, the more valuable it is. Consequently, exchanges compete for liquidity and thus for data quality, which, as we have seen, is linked to the volume of transactions.

17. As we discussed in our prior submission and will discuss again later in this statement, the volume of transactions on an exchange in a given stock and in the aggregate is determined in a competitive market for accessing liquidity on various platforms. Each platform's share of trades is not fixed but, rather, results from competition across a broad range of platforms on which the particular stock can be traded. From that perspective, therefore, the volume and quality of data relating to any particular stock is also determined by and as a result of the interplay of economic forces. As long as inter-platform competition is not impeded, NASDAQ neither has monopoly power in trading, even in a stock listed on NASDAQ, nor does it

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6. See [http://www.batstrading.com/data/daily\\_volume.php?period=2006Q1](http://www.batstrading.com/data/daily_volume.php?period=2006Q1). BATS Trading traded 200 shares on January 27, 2006 (and 934,804,026 shares on June 30, 2008).

7. Also see Edgar Ortega, "Yahoo Will Offer Free Real-Time Stock Quotes From Bats Trading," Bloomberg, May 28, 2008 (BATS Trading "handles about 605 million shares a day, representing about 8.9 percent of the shares traded in the U.S.").

have a monopoly over the information pertaining to the depth of book in a stock, because other exchanges also will have such information (albeit determined by the depth-of-book on that exchange). As competition for the execution of trades shifts in response to market signals, so will the quality of information available from the alternative platforms. Hence, competition for listings and trading also affects competitive conditions in the “market” for information.

18. In theory at least, “network” (or “liquidity”) effects could potentially lead to a situation where one platform captures a large share of all trades in one or more stocks or some other financial instrument. In such a case, the exchange would have a “monopoly” in trading in the stock as well over the information pertaining to that stock. Two points are worth making in this context. First, the demonstrated ability of platforms to capture a substantial percentage of trades of stocks listed on other exchanges indicates that such effects are generally mitigated in the market for equity trading, or that such effects have been offset by other forces (including the introduction of Regulation NMS), or that there is sufficient inter-platform product differentiation so that, given the large trading volumes, two or more exchanges can compete alongside each other. If anything, the empirical evidence on platform shares we have discussed indicates that there is no powerful trend towards concentration of trading in a given stock on a single exchange: quite the opposite. Second, at least from the competition (or antitrust) perspective, it is rather implausible that a single stock (or trading in a single stock) would constitute a relevant market. Hence, for the effects we have discussed to be a source of competitive concern, such effects would have to be powerful over a broad range of equities. Empirical evidence clearly shows that this is not the case.

#### **B. Trading Platforms Produce “Joint Products.”**

19. Execution services and market data are an example of “joint products.” This is because every execution of a trade automatically produces another potential product, namely information about that trade (such as the price and quantity traded). Similarly, depth-of-book

information is automatically produced when traders post limit orders on a platform. The production of joint products necessarily involves incurring “joint costs,” i.e., costs that are not uniquely incurred on behalf of any one of the services provided by the exchange.<sup>8</sup> The total return that a trading platform earns reflects the revenues it receives from the sale of these joint products and other services, net of the joint cost and direct costs (i.e., costs that can be directly attributed to the relevant products) it incurs.

20. Trading platforms make simultaneous pricing decisions regarding liquidity rebates, execution fees, and market data fees. Liquidity rebates attract orders that create available liquidity by paying the order submitter a fee when the order executes; execution fees are incurred when an investor’s order interacts with available liquidity resulting in a trade; and market data fees pay for access to information about, for example, currently available liquidity and past trades. All of these decisions are made with the goal of maximizing profits, or fostering other legitimate business objectives, subject to competitive and regulatory constraints.<sup>9</sup>

21. In general, there is no economic basis for placing some arbitrary regulatory caps on prices for one of the joint products in market situations where suppliers face competitive constraints across the range of their offerings.<sup>10</sup> The simple reason is that, in general, an “excessive” price for one of the products will, ultimately, have to be reflected in lower prices for

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8. It is widely accepted that there is no meaningful way to allocate “common” or “joint” costs across different joint products. For this reason, “cost-based” regulation of pricing of market data requires inherently arbitrary cost allocations. Furthermore, it is widely recognized 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). For example, common costs are recovered from various services based on customers’ willingness to pay. For a succinct and elegant treatment see, e.g., J-J. Laffont and J. Tirole, *Competition in Telecommunications*, MIT Press, 2000, especially, chapters 1 and 2.

9. For example, regulation requires that some information, such as a platform’s best bid and offer, be provided at non-market determined rates.

10. For a discussion on the conditions under which regulation is appropriate in network industries, see R. D. Willig, “Economic Principles to Guide Post-Privatization Governance,” in F. Besañes et al. (eds), *Can Privatization Deliver?*, Inter-American Bank, 1999.

other products sold by the firm or the firm will otherwise experience a loss in the volume of its sales that will be adverse to the overall profitability of the enterprise.

22. Exchanges compete with each other on a variety of dimensions. For example, U.S. exchanges compete with each other (and foreign exchanges) initially for new listings and subsequently for listing switches. With respect to a given stock, unless a stock is listed on an exchange, other platforms have nothing to produce, no market data and no executions. Once a stock has been listed on a particular exchange, rival exchanges and other trading platforms – such as electronic communications networks – compete to execute trades of shares in that stock. Thus, a listing exchange bestows a positive externality on its potential rivals.

23. Different platforms may choose different pricing strategies and ways of recovering total costs and earning a return on their investments. Some platforms may choose to pay rebates to attract orders, charge relatively low prices for market information (or provide market information “at no cost”) and charge relatively high prices for accessing posted liquidity. Other platforms may choose a strategy of not paying liquidity rebates to attract orders, setting relatively high prices for market information and relatively low prices for accessing posted liquidity. Others may choose to foster trading on a platform by establishing ownership interests among customers that provide liquidity and consume market data. These strategies can vary over time in response to changing market, life-cycle, and regulatory factors. BATS Trading, for example, has chosen an initial strategy of setting low (or zero) prices for market data, mid-range prices for executions, and relatively high liquidity rebates.<sup>11</sup>

24. The economic evidence shows that exchanges and other trading platforms compete with each other on pricing. To illustrate, in 2007, NYSE Euronext changed its prices to compete more effectively with rival trading platforms:

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11. Pricing of services on an exchange may vary over the life of the exchange in response to its changing market position. For example, at the time of entry, pricing on an exchange may be motivated by the need to attract liquidity. At later stages, as the information flows from an exchange become richer and more relevant to consumers, the exchange may introduce fees for data, which help to recoup in part the initial up-front investments in the platform..

NYSE Euronext introduced new pricing on [September 12, 2007], including higher rebates for stock trades on its exchanges, to better compete with aggressive pricing set by electronic rivals such as BATS Trading.

Under the new pricing system effective Oct. 1, customers trading on the Big Board's all-electronic NYSE Arca platform will get a rebate of 25 cents for every 100 shares of NYSE-listed stocks traded, 5 cents more than the current rebate.

...

The exchange also lowered the charge for customers taking liquidity in Nasdaq-listed stocks out of its market by 5 cents, from 30 cents to 25 cents. Liquidity providers in Nasdaq-listed stocks will continue to get a rebate of 20 cents.

...

Upstart electronic platform BATS Trading recently introduced a pricing structure providing a rebate of 34 cents per 100 shares for customers providing liquidity in NYSE-listed stocks, and a charge of 24 cents per 100 shares for customers taking liquidity in NYSE-listed stocks away from BATS.

"We're pleased at this reaction to BATS's consistently aggressive pricing," said Randy Williams, a spokesman [for BATS].<sup>12</sup>

25. Some trading platforms pay substantial sums in the form of liquidity rebates to induce customers to "post orders" on their platform.<sup>13</sup> For example, in 2009, NASDAQ paid \$1.394 billion in liquidity rebates.<sup>14</sup> These posted orders allow NASDAQ to attract additional "order flow" that interacts with the posted orders by taking available liquidity and results in trades executing on its exchange. Posted orders, the liquidity-taking order flow, and the executed trades produce information that is valuable to investors.<sup>15</sup> Other platforms do not offer

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12. Anupreeta Das, "NYSE Euronext changes equities transaction pricing," Reuters, September 12, 2007.

13. In 2008, the National Stock Exchange ("NSX") introduced a new pricing structure that included "market data rebates embedded in liquidity rebates" (<http://www.nsx.com/content/news/story/91#January312008>). That is, NSX uses revenue it receives from selling market data to increase the rebates it pays for liquidity.

14. Form 10-K for NASDAQ Stock Market Inc., February 18, 2010, at 54.

15. Some commentators suggest that fees for proprietary data must be set "at cost." As we explain in this submission, there is no need to impose a cost-based pricing standard for such data and there is no unique cost basis that could be used for such a purpose. As we have discussed, the latter conclusion follows from the fact that the information at issue is a joint product and since the incremental cost of providing such information to an additional customer is small (or zero), marginal cost pricing is not feasible. Additionally, those commentators ignore that NASDAQ paid over a billion dollars in liquidity rebates in 2009 to

rebates to liquidity providers but instead offer lower fees or even free executions to liquidity-taking order flow. We understand that some exchanges, including the National Stock Exchange and the American Stock Exchange, offer equity ownership as an incentive/reward for active trading on their platforms.

26. Platforms also compete on data fees. For example, in June 2008, NASDAQ launched two proprietary “Last Sale” products. In each case, the terms included subscription rates and an “enterprise cap” rate designed for Web portals. The enterprise cap rates for the two products were \$100,000 per month and \$50,000 per month for the two products (i.e., a cap of \$150,000 per month for customers who purchased both products). The majority of NASDAQ’s sales were at the cap level. We understand that in early 2009 BATS offered an alternative product (BATS PITCH data) as a “free” alternative to the NASDAQ Last Sale products. Also in early 2009, NYSE Arca announced the launch of a competitive product with an enterprise price of \$30,000 per month. In response, in April 2009, NASDAQ combined the two Last Sale products into one and reduced the enterprise cap to \$50,000 per month (i.e., a reduction of \$100,000 per month).

27. The fact that different exchanges adopt dissimilar pricing strategies suggests that customers have different preferences over the services provided by the exchanges as well as different willingness (or ability) to pay for these services. Thus, pricing heterogeneity partly reflects customer heterogeneity and adds to customer value as well as profitability.

28. Information on trading volumes further confirms that platforms compete actively for trading in listed stocks. For example, as we have noted, the NYSE accounted for about 80 percent of trading in NYSE-listed stocks in 2006; by October 2010, NYSE’s share of trading in those stocks has fallen to as low as 22.6 percent, and the NYSE Group’s share – i.e., the NYSE

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induce trading on its platform and thereby generate the information that such commenters apparently want to obtain at a price that reflects only the cost of creating the proprietary data products (i.e., ignoring the costs of rebates and other joint costs).

and NYSE Arca – has fallen to 35.2 percent. Such large shifts in trading volumes across platforms indicate that traders can, and do, quickly move their orders from one exchange to another in response to market signals, which is clear evidence that platforms compete with each other. This intense competition among trading platforms can be expected to constrain the aggregate return each platform earns from its sale of all of its products.

29. Further increases in the price of proprietary data by a platform can be expected to reduce the volume of trading on that platform, which reduces the profitability of such a price increase and thus constrains the pricing of proprietary information. Conversely, a platform might reduce prices for proprietary information in order to maintain or increase the volume of trading on that platform. For example, we understand that in late 2009, a member notified NASDAQ that in the absence of a fee reduction for “non-displayed use” of depth data, the member would move order flow from NASDAQ to a competing platform. After meeting with the member and analyzing the potential loss of trading volume, NASDAQ sought and obtained SEC approval for an Enterprise License for non-displayed use of certain depth data.<sup>16</sup> NASDAQ’s decision linked data revenue to transactions revenue, reflecting platform-based pricing and the nature of joint products.

### **C. The Role of Market Information in Trading Platform Competition.**

30. Prior Commission rules mandate that certain types of market information must be made available to all customers. For example, in 1978, the Commission implemented the “Display Rule” which required information vendors and broker-dealers “to display a consolidated array of information for each stock including the single best quotation available in the reporting markets or a montage of all markets’ best quotations, and the last sale data including price,

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16. See Securities Exchange Act Release No. 61700 (March 12, 2010); 75 F.R. 13172 (March 18, 2010) (approving SR-NASDAQ-2010-034).

place and volume.”<sup>17</sup> Exchanges and other trading platforms are required to provide their trade (or “core”) information to a “securities information processor” (“SIP”) which consolidates data from all platforms to produce the mandated information.<sup>18</sup>

31. In addition to the information that trading platforms are required to provide to SIPs, exchanges and other platforms can, but are not required to, individually make available additional market data – sometimes referred to as non-core, or “proprietary”, information. As we have discussed, the posting of trades on a platform, the execution of those trades, and market information about order flow to the platform and trades on the platform, are joint products.

32. There is no question that core data are valuable, which is reflected in the Commission’s requirement that this base information be provided at reasonable fees to all parties. There is, of course, value in additional information flowing from the exchange. But there is no evidence that this additional information is of the same fundamental value to the financial markets as the information that exchanges are required to provide. Whether or not a customer purchases the incremental information depends on the cost/benefit analysis of the individual customer. Moreover, the decision of an individual customer not to purchase this incremental information is not likely to create a material negative externality on the trading public and thus a decision to buy or not is best left to individual customers while ensuring that competition among exchanges creates effective constraints on the pricing of proprietary data.

33. Market information is useful in a number of ways, including as an input into trading activities, for valuing securities and portfolios, and for evaluating the performance of a broker or trader.<sup>19</sup> Depth-of-book market information can help investors make better trading

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17. Sharon Brown-Hruska, “Competing Models for Market Data Dissemination: A Comparison of Stock and Futures Markets,” at 7 (describing Rule 11Ac1-2).

18. Trade information is consolidated into three data streams – referred to as Tape A (for NYSE-listed shares); Tape B (for shares listed on the AMEX and regional exchanges); and Tape C (for NASDAQ-listed shares). One SIP compiles Tape A and Tape B information; a different SIP compiles Tape C information.

19. Market information can be useful to firms that act as intermediaries between trading

decisions. The decision to post an order that would be disseminated by a depth-of-book feed reflects a trade-off between the cost of offering a “free option” to the market and the benefit of attracting a taking order and thereby creating an execution.<sup>20</sup> The costs and benefits of posting an order will depend on the attributes of the platform where the order can be posted, including the platform fees, data quality and price and distribution of its data products. Without the prospect of a taking order seeing and reacting to a posted order on a platform with a depth-of-book feed, there would be little incentive to post a displayed order. Independent of trading, depth-of-book data also may be useful as a barometer of market sentiment. For example, a “deep” book with many orders at numerous prices near the current price may be considered to be a sign of investor confidence; conversely, a “thin” book with few orders may be considered a sign of investor uncertainty. Whether depth-of-book data are used for trading or not, a platform must attract orders, both posting and taking, to generate depth-of-book information.

34. It is important to keep in mind that a trader can participate in trading even without proprietary information from a particular platform regarding a particular stock or array of stocks. That is, while it is conceivable that proprietary information generated by NASDAQ could be potentially quite valuable to certain traders who wish to trade on NASDAQ, the key point is that a trader is not compelled to trade on NASDAQ in NASDAQ-listed stocks. Such a trader, while potentially benefiting from information generated by traders who trade on NASDAQ, contributes nothing to the recovery of joint costs incurred by NASDAQ.

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platforms and the trading public but do not trade themselves. For example, web sites like Google and Yahoo! benefit in a variety of ways from attracting more visitors because such visitors are likely to “stick” to the website and generate other business and thus incremental revenues. Such web sites would not have an incentive to buy non-core data products if they were of no value to ultimate consumers. These web sites are thus engaged in joint production and have devised sophisticated pricing mechanisms to monetize their investments in the production of content.

20. See, for example, Notice of Proposed Order Approving Proposal by NYSE Arca, Inc. To Establish Fees for Certain Market Data and Request for Comment, Release No. 34-57917, June 4, 2008, released by the Securities and Exchange Commission, Appendix A, at 51-53.

35. Ubiquitous access to core data (e.g., National Best Bid and Offer, or NBBO, information) is perceived by the regulatory authorities as essential to the efficient functioning of the equity markets.<sup>21</sup> This conclusion does not, however, apply to proprietary products which are valuable to some traders but are not required to ensure baseline efficiency of the trading system. This being the case, and given that all costs of an exchange have to be recovered on a forward-looking basis, it makes economic sense that the beneficiaries of such proprietary information help to defray some portion of the joint and common costs incurred by the exchange.

36. Although proprietary data are jointly produced with trading activity on the exchange, such raw data needs to be further processed and stored in order to be usable to customers. Exchanges would have little or no economic incentive to expend resources on developing, processing, and maintaining proprietary data unless it were valuable to at least some customers and could generate income for the exchange directly or indirectly. For example, an exchange that offered for sale additional information – beyond what is mandated by regulatory fiat – must incur the costs of collecting, preparing and marketing that data, but would gain no commensurate revenues unless at least some customers considered it valuable and were willing to pay for it either directly or through fees on trades.<sup>22</sup>

37. Thus, even if certain information is generated every time customers post buy/sell orders or execute trades, that information has to be maintained and continuously updated on databases, processed using software packages, and disseminated out to the public, all at substantial cost. This alone suggests that such proprietary data should not be made available

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21. We understand that NASDAQ receives a share of the revenue generated from the sale of core data at regulated rates.

22. As we have discussed, different trading platforms may choose different pricing strategies. 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 charge more for trade execution services than a platform owner that sells market information.

for free. Even more importantly, proprietary data are generated by the exchange using an expensive software and hardware infrastructure. These costs, together with the costs of executing trades, have to be recovered. As we shall explain in more detail later, sale of proprietary data should be called upon to contribute to the recovery of all the costs incurred by the exchange on behalf of all its products.<sup>23</sup>

38. Even if a trading platform had some unique information that is potentially valuable to (some) consumers, the total price of trading on that platform – which includes the price of market data available from the platform that the trader elects to purchase – is constrained by the total price of trading on rival platforms. Therefore, it is incorrect as a matter of economics to focus on whether any given information can only be obtained from a particular platform in order to gauge that platform's "market power." Proper economic assessment focuses on inter-platform competition which is driven by a variety of factors, including the availability and quality of platform-generated data and the extent to which that competition constrains pricing.

39. Because customers can choose between competing trading platforms, the competitive constraints faced by sellers of market data differ from the constraints faced by the sellers of regulated "monopoly" inputs. For example, consider the case of a Regional Bell Operating Company ("RBOC") that sold access to its "local loop" for residential customers (i.e., the connection to a customer's home). Beginning in the 1980s, residential customers could choose among long-distance operators, but typically had no choice of providers for local-loop service because each home was reached by only one "wire." Thus, a firm that wanted to offer

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23. This point was recognized over a century ago by the British economist Alfred Marshall who noted that the total cost of raising and maintaining a sheep should be recovered from wool and mutton and not from either one alone, even though it is unavoidable that a sheep will produce both, unless there is no demand for mutton, for example. See, Alfred Marshall, *Principles of Economics*, Cambridge University Press, 1890. There is no danger in the instant case that there will be no demand for either execution or proprietary data on NASDAQ. The whole point is that there is demand for such data, but those who have such demand have balked (apparently) at paying for it.

long-distance service to a consumer had to buy “access” to that local-loop service from the monopoly provider in that area (i.e., the only way into a customer’s home was through the wire owned by the local phone company).<sup>24</sup>

40. In contrast to the case of RBOCs selling local-loop access, individuals who want market data can obtain it from a variety of platforms, some of it even at no cost. Even though market information from one platform may not be a perfect substitute for market information from other platform(s), the existence of alternative sources of information can be expected to constrain the prices platforms charge for market data, especially when reinforced by inter-platform competition.<sup>25</sup>

41. For competitive concerns to conceivably arise in a setting like this, the quality (breadth and depth) of information from other platforms would have to be so inferior (and the incremental benefit from proprietary information so overwhelming), that the competitive viability of the alternative platforms would be undermined if traders had to pay market prices for the “dominant” platform’s proprietary information. In such a case, these other platforms would not be in a position to offer attractive opportunities for traders and would not exercise a meaningful constraint on the dominant platform. This was precisely the market situation facing carriers that wished to connect to an RBOC’s network. In essence, these carriers had to either pay the monopoly price or invest in costly and inefficient by-pass technologies. Regulatory constraint on pricing of access at the time may have been the most effective solution to the RBOCs’ monopoly power. However, this concern is not present here because, as we have seen, other exchanges have been able to enter, flourish, and divert business from NASDAQ.

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24. More recently, cable firms started providing a competitive alternative to RBOC local-loop access in some areas.

25. Competition among platforms is similar to “source competition” that keeps railroad rates down – if an electric utility can get coal from two sources, each of which is served by a “monopoly” railroad then both apparent railroad monopolies are undermined. Similarly, if a customer can purchase power from two different generators, each served by a single railroad, both apparent railroad monopolies are undermined.

#### IV. ECONOMIC ANALYSIS OF NASDAQ'S "PLATFORM PRICING" PROPOSAL.

##### A. Summary of NASDAQ's "Platform Pricing."

42. We understand that the "Platform Pricing" program introduces tiered pricing that reflects customers' *joint* activity on the exchange through trading volumes and purchases of proprietary data. A customer who is an active trader *and* an active consumer of data receives an aggregated discount relative to the fees paid by other customers. NASDAQ already offers volume discounts on trades and proprietary data spend. Hence, the only novel element of this proposal is the discounting based on the customer's aggregate activity. As such, in general, it should not trigger any regulatory concerns. However, below we comment on the possible situation in which such concerns could arise and find that these are not present in the instant case.

43. NASDAQ is introducing a discount of its proprietary depth-of-book products (TotalView, OpenView and Level2) sold to "non-professional" investors. "Non-professional" investors include traditional retail brokers such as AG Edwards, Raymond James and Merrill Lynch and online brokers such as Scottrade, Schwab, Fidelity, TD Ameritrade and E\*Trade. Such investors can purchase depth-of-book information that will be used by their clients (i.e., retail investors) to make trading and other decisions. That is, customers who could qualify for "Platform Pricing" discounts purchase information on behalf of retail investors and will attempt to recover the costs of these valuable purchases from the ultimate consumer whether directly or indirectly (e.g., through increased trading). The likely effect of the volume discounts in the "Platform Pricing" proposal will be to "pass through" lower fees to the ultimate non-professional investors on whose behalf NASDAQ's customers purchase proprietary data.<sup>26</sup>

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26. We understand that non-professional proprietary spending includes expenditures associated with the distribution of the following products: TotalView, OpenView and Level2. This calculation includes the monthly usage, distributor fees and enterprise license fees for the firm. Members must meet both the volume requirement and the proprietary data

44. The “Platform Pricing” discounts are not available to “Professional” investors, which include trading firms that can connect directly to the NASDAQ trading platform (e.g., high frequency traders). Even prior to the introduction of “Platform Pricing,” NASDAQ charged different fees for its depth-of-book products to “professional” and “non-professional” investors. In particular, “professionals” pay substantially higher fees than “non-professionals.” For example, we understand that NASDAQ currently charges \$15 per terminal for its TotalView product to non-professionals, while professional investors pay roughly five times the non-professional rate. Such pricing reflects the value of the service in a manner that is consistent with pricing rules advocated by economists in the presence of large joint and common costs and low incremental costs, as we discuss next.

**B. The Economics of Pricing Products in the Presence of Scale Economies Stemming from Large Joint and Common Costs and Low Marginal Costs.**

45. The products at issue in this regulatory proceeding are produced under the conditions of high fixed costs, which are also joint and common to a range of products, and low (or zero) marginal or incremental costs of serving an additional customer. In addition, other incremental costs (such as developing information on the depth of book of an additional security) are also low when compared to the volume of costs associated with operating an exchange, including the underlying information technology. Indeed, state-of-the art information technology is at the heart of a competitive and efficiently operated financial market (such as an exchange).

46. This cost structure characterizes content production and distribution industries. For example, in the software industry, developing new software typically requires a large initial investment (and continuing large investments to “upgrade” the software), but once the software is developed, the incremental cost of providing that software to an additional user is typically

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requirement to be eligible for the discount.

small, or even zero (e.g., if the software can be downloaded over the internet after being purchased).<sup>27</sup> The same is true of newspapers, motion pictures, books, and so forth.

47. In the case of NASDAQ, the production process at the heart of this regulatory matter is even more complicated. In particular, besides being characterized by low incremental costs and high fixed costs, the products produced by NASDAQ (e.g., trade execution services and market data) are produced “jointly.” There is no question that it is costly to build and maintain data bases that are needed to produce proprietary data, but providing that information to an additional customer involves little or no additional costs. Similarly, the incremental cost of trading an additional share of stock on an existing platform is likely to be low once the platform has been developed. The relevant products are produced jointly in the sense that the activities of trading and placing orders are *the* source of information that can be (and is) distributed to the interested parties and are subject to significant scale economies.<sup>28</sup>

48. There is a substantial economic literature that addresses the pricing principles for products and services in industries with this type of cost structure: i.e., scale economies and joint and common costs.<sup>29</sup> Economic analysis shows that charging prices equal to marginal cost is the most efficient pricing rule. However, given the cost structures noted above, marginal cost pricing is not economically feasible. That is, marginal cost pricing is not feasible when there are increasing returns to scale because if all sales were priced at marginal cost, the vendor would be unable to defray the forward-looking costs of providing the service and would (ultimately) go

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27. See William J. Baumol and Daniel G. Swanson, “The New Economy and Ubiquitous *Competitive Price Discrimination: Identifying Defensible Criteria of Market Power*,” *Antitrust Law Journal*, Vol. 70, No. 3 (2003).

28. This is not the case with Marshall’s sheep farming. Sheep are likely produced with constant or increasing marginal cost and the pricing complication is confined to the most efficient recovery of the marginal cost of a sheep.

29. See, e.g., R. R. Braeutigam, “Optimal Policies for Natural Monopolies,” in R. Schmalensee and R.D. Willig (eds.), *Handbook of Industrial Organization*, vol. I, North Holland Publishers, 1989, for a review of pricing rules in the presence of scale and scope economies.

bankrupt and would have to exit the industry. Stated simply, pricing services at marginal cost in an industry with a cost structure like that of NASDAQ is a prescription for bankruptcy.<sup>30</sup>

49. For this reason, the services provided by a trading platform cannot be priced at marginal cost. Moreover, as we have discussed, execution services and market data are joint products. This does not mean that if one product is regarded as simply a by-product of another activity, it should be priced at a zero. Far from it: insofar as there is demand for that product at a positive price, the price for that product should be positive. Thus, even if information could be produced at zero marginal cost, economic principles mandate that it nevertheless be priced to the willing buyers at a price higher than the associated marginal cost.<sup>31</sup> That is, it is economically appropriate for such information to carry a positive price.

50. It is economically appropriate for information to carry a positive price in this context because if the platform incurs joint and common costs, “giving away” one product means that the other product(s) must cover all the joint and common costs.<sup>32</sup> This is potentially inefficient because it requires that the price of these services be raised above their respective marginal costs by more than would be necessary if the “free” product or service made some contribution to the recovery of the joint and common costs. Of course, as we have discussed, different platforms may choose different cost recovery strategies and may price one joint product at marginal cost (e.g., a platform may provide market data at “no cost”) but will have to price another joint product (e.g., execution services) significantly above the appropriate marginal cost in order to remain viable.

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30. The marginal cost that we are focusing on is the additional cost incurred by the exchange in providing the information to an additional customer.

31. See, e.g., W.J. Baumol and J.A. Ordover, “On the Optimality of Public Goods Pricing with Exclusion Devices,” *Kyklos*, Fasc. 1, 5-21 (1977).

32. It is uncontroverted that in the absence of a platform for trading, there would be no information regarding the depth-of-book or information about prices at which trades occur. Thus, a trading platform is a “cost center” for both trade execution services and market data.

**C. “Price Differentiation” in Markets with High Fixed Costs and Low Incremental Costs is Common, Efficient, and not Anticompetitive.**

51. Given that marginal cost pricing is generally not feasible in high fixed cost industries, some deviations from marginal cost pricing are unavoidable. One alternative might be to charge all customers a price equal to average total cost (including a return to capital). It is, however, well known that uniform average cost pricing – that is, charging the same price equal to average cost to all customers – is not socially efficient. In general, economic efficiency in these circumstances requires that customers whose demand is more responsive to price changes pay prices closer to marginal cost as opposed to customers who are less responsive to price changes. By offering a lower price to customers whose demand is more responsive to price, the seller stimulates demand, increases overall revenue, and in fact can offer a discount off the starting price (set at an average cost) even to the less responsive customers. Economists call this type of pricing structure “differential pricing” or “price discrimination.” Incidentally, this type of pricing reflects the underlying values that different consumers place on the product. To illustrate, a buyer whose demand is very responsive to price changes likely does not value the product very much above the available alternatives. Hence, this type of differentiated pricing is really a “value-driven” pricing. There is nothing problematic with such pricing once it is realized that neither marginal cost pricing nor uniform pricing are desirable from efficiency principles; and there is a great deal to recommend it.

52. Another form of differential pricing entails quantity (volume) discounts. In this pricing scenario, the incremental price (that is, the price for incremental units) falls with volume. This makes business and efficiency sense as long as the incremental price exceeds the incremental cost of the additional sales. In this case, the total volume of sales expands, which

is socially efficient, and consumers and the firm benefit.<sup>33</sup> In fact, volume discounts are ubiquitous in industries characterized by high fixed costs and low marginal costs.

53. Differential pricing (price discrimination) can benefit all groups of customers, provided it is implemented within some limits.<sup>34</sup> In particular, when competition constrains the overall profits earned by a supplier, such as is the case with trading platforms, differential pricing will, on balance, tend to benefit all customers as compared to, for example, uniform pricing. As we have discussed, competition in the provision of trading platform services is fierce. Hence, in the industry discussed here, differential pricing involving volume discounts should be encouraged rather than discouraged.

54. Differential pricing allows a provider to recover more of its fixed costs from some customers than from others and more on some units of sale than on others. For example, as we have discussed, professional investors' fees for market data generally are many times larger than fees paid by non-professional investors for the same product. That is, with this type of pricing structure both types of investors contribute to fixed costs but, all else equal, professional investors contribute more than non-professional investors on each unit purchased.

55. As we have discussed, NASDAQ's "Platform Pricing" differentiation strategy is based on two distinct criteria: (1) trading volume and (2) purchases of market information. The current proposal envisages that the marginal price (which is the increment that the customer has to pay for additional data and access to liquidity) falls with the volume of the activity and with the total volume of the trader's dealings with NASDAQ. That is, the proposed schedule exhibits effective volume discounts and also certain "bundling" of discounts. As we have discussed, volume discounts are generally procompetitive and efficiency enhancing, especially in situations like here where the marginal cost of the activity (e.g., providing market information

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33. It is also possible to combine price differentiation across customer groups with volume discounts. That is, it is possible to have different discount schedules for different customer categories.

34. This has been shown by R. D. Willig, "Pareto-Superior Non-linear Price Schedules," *Bell Journal of Economics* (1978).

to an additional consumer) is likely to be low or zero while the fixed costs are substantial. The reason is that with marginal costs low (or even zero), any price above this low marginal cost (say, equal to the average cost), suppresses output and thus lowers economic welfare. Hence, it is desirable to stimulate demand by offering volume discounts.

56. Volume discounts can improve a firm's profits *and* consumers' welfare. The firm's profit increases because additional purchases at any price above marginal cost help the firm recoup high fixed costs. Consumers' welfare increases where the policy causes consumers to purchase incremental units, which reveals that consumers obtain a net benefit from incremental purchases. This is true because the purchase of incremental units is voluntary, as is the case for depth-of-book data.

**D. "Bundling" is Common and Generally Procompetitive.**

57. The proposed NASDAQ price schedule provides for discounts that depend not only on volume but also on the combined spend on providing liquidity as well as the use of data. This type of pricing structure is sometimes referred to as "bundled" discounts.

58. It is not unusual for firms to offer discounts that are linked to total spend across a number of products. These types of pricing plans often reflect the fact that customers are differentiated on more than one dimension in terms of their willingness to spend on any given product. Here such differences might be differences in the willingness to pay for data and for accessing liquidity. In such a case, combining different products into one package makes it easier to design a plan that will appeal to a broader group of potential customers and stimulate overall sales than would a plan that offered discounts based only on the volume of one kind of activity or another. For example, some customers purchase substantial amounts of data but are not active in the market (e.g., market data vendors, independent software vendors, service bureaus, internet portals). Other customers may be active in the market but purchase little or no proprietary data (e.g., a small firm whose primary focus is trading at high frequencies). By

conditioning the discount on both activities, the “Platform Pricing” plan can achieve improved participation from both categories of users as compared to disaggregated plans.

59. Competitive concerns from a practice of bundling discounts across a range of products may potentially arise when such bundling-cum-discounting is used to foreclose entry (expansion) of rival firms which may not be able to offer an array of products as broad as that offered by the incumbent. In the instant case it is not likely that the combined offer will induce rival exchanges to exit (or become less competitively potent due to a reduction in volume). It is also not likely that the combined offer will have the effect of creating significant barriers to entry or expansion for new exchanges.

#### **E. Price Differentiation is Consistent with “Fairness.”**

60. “Fairness” is a concept that is often referenced in regulatory settings; however, it does not have a clear meaning in economics. Various definitions of what “fair” means have been provided in the economics literature but they are, in the end, arbitrary. The underlying idea is to propose a definition of “fairness” and then test its implications for public policy. In the current context, because we are dealing with pricing of services to different customers, the concept of fairness could be related to the permissible price differences for the same products charged to different customers (or customer groups).

61. From this perspective, one highly restrictive interpretation of the concept of fairness would be a requirement that all customers pay the same price for the same service, unless there are differences in the costs of serving them (i.e., fairness would be equated to the absence of price discrimination). In this interpretation of the fairness concept, the only permissible source of different treatment is the difference in the marginal (or incremental) cost of providing the product (service) to a customer. This view is consistent with the purely theoretical benchmark of perfect competition where all buyers pay the “marginal cost” of the good.

62. However, as we have discussed, marginal cost pricing is not feasible in a variety of realistic market settings and thus this pricing rule is not appropriate in situations like those considered in this submission. In the alternative, if all consumers have to pay the same price, non-discriminatory might mean pricing all services at an average cost.<sup>35</sup> There are two problems with this prescription. First, when there are joint and common costs, all calculations of average cost are arbitrary because the allocation of joint costs to different products is arbitrary. Second, such pricing is inefficient in the sense that it represses output and economic welfare relative to what could be realized with more complex pricing rules. From this brief discussion it follows that some differential treatment of different customers or customer classes should be allowed in order to promote overall economic efficiency which conduces to overall economic well-being and also serves to improve the profitability of firms.

63. So the question arises as to how far such differentiation should be allowed to go without violating some principle of fairness. Professor Gerald Faulhaber proposed that fair prices are those that are free of “cross-subsidy” of one customer group by another.<sup>36</sup> Cross-subsidy can be defined as a situation in which a customer (or customer group) pays more for what it purchases from a firm than what it would pay if it were not part of a broader customer group buying from that firm. In theory, the simplest benchmark for the absence of cross-subsidy is whether the price the buyer pays is below the marginal cost. If one customer pays less than the marginal cost of being served, another customer has to make up the difference by paying more than would be required if every customer covered (at least) the relevant marginal cost. In the current context, the marginal cost of serving an additional customer – be it accessing liquidity (transaction), posting offers, or obtaining information – are likely to be low, or perhaps even zero. Consequently, the rates proposed by NASDAQ in the “Platform Pricing” plan do not

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35. Since average cost depends on the volume of sales, which in turn depends on prices, the average cost is calculated at the volume at which the market clears, when the price is set at average cost. There is always such an equilibrium price.

36. Gerald Faulhaber, “Cross-Subsidization: Pricing in Public Enterprises,” *American Economic Review* (1975).

violate a fairness standard defined as systematically pricing below marginal cost to some customers on some purchases.

64. Professor Faulhaber also advanced a somewhat stricter definition of cross-subsidy which has been elaborated by William Baumol and Greg Sidak.<sup>37</sup> These authors propose that fairness requires that no group of customers should pay more for the service obtained than the incremental cost of serving them. This standard has been successfully applied for years in railroad regulation (following the passage of the Staggers Act) under the rubric of the “stand-alone cost test.” Under such a test, prices to some customer groups could be conceivably quite high but even these high-paying customers obtain some benefits from sharing the facilities (such as the platform and the services it provides) with other customers.<sup>38</sup> Consequently, a plausible standard of fair pricing is that all customers of the vendor (such as NASDAQ) share in the benefits from participating on the platform, even if the sharing in the benefits may not be necessarily equal.<sup>39</sup>

65. In sum, fairness is not a core concept of microeconomics or of industrial organization. It can perhaps be best interpreted as forbidding cross subsidies among customers groups. After all is said and done, the metric of what is fair or unfair has to be imported from elsewhere from outside of the model.

66. More importantly, perhaps, differential pricing and bundled discounts should not be assessed against some abstract concept of fairness as long as these pricing practices arise

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37. William J. Baumol and J. Gregory Sidak, *Toward Competition in Local Telephony*, MIT Press, 1994.

38. In the railroad setting, shippers who are the least responsive to price – those that buy coal, for example – pay the most. Here the large buyers pay the least which is reasonable since they are likely to be relatively price-responsive demanders.

39. Some potential purchasers of depth-of-book data are distributors (e.g., Google). These customers “consume” (i.e., purchase) data without trading. However, such distributors purchase data on behalf of retail investors who can be expected to trade (i.e., a distributor would have no incentive to purchase data unless it were valued by at least some of its customers).

in a market in which there is effective competition and the practices at issue are unlikely to lead to the diminution of competition and exclusion of more or equally efficient rivals. Because there is no plausible worry that the “Platform Pricing” plan will so disadvantage some customers of NASDAQ as to distort the workings of competition in the downstream market, the proposed pricing plan raises no competition concerns.

#### **IV. CONCLUSIONS.**

67. Significant competitive forces constrain the prices charged for non-core products by NASDAQ and other platforms. At least two types of competitive forces constrain the prices that platforms can charge for non-core market information. First, a trading platform cannot generate market information unless it receives trade orders. For this reason, a platform can be expected to use its market data product as a tool for attracting liquidity and trading to its exchange. Second, even though market information from one platform may not be a perfect substitute for market information from one or more other platforms, the existence of alternative sources of information can be expected to constrain the prices platforms charge for market data.

68. There are high fixed costs of supplying the products at issue in this regulatory proceeding. Moreover, these fixed costs are also joint and common to a range of products provided by the exchanges (such as NASDAQ). Finally, the marginal or incremental costs of serving an additional customer are low or close to zero. In industries with these cost characteristics, charging all customers the same price is not economically efficient. Instead, differential pricing which includes volume discounts and “bundling” can lead to improved economic welfare and market performance.

69. NASDAQ’s “Platform Pricing” is an example of this type of “differential pricing” and “bundling.” Differential pricing in markets with high fixed costs and low incremental costs is common, efficient, and not anticompetitive. “Bundling” also is common and generally procompetitive. Finally, differential pricing is consistent with “fairness”.

A handwritten signature in black ink, appearing to read "J Ordover". The signature is written in a cursive style with a large initial "J".

Janusz Ordover

A handwritten signature in black ink, appearing to read "Gustavo Bamberger". The signature is written in a cursive style with a large initial "G".

Gustavo Bamberger

December 29, 2010

## **Appendix A**

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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**

- 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 - Aug. 2001 Director of Masters in Economics Program  
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Summer 1996-2000    Lecturer  
 International Program on Privatization and Reform  
 Institute for International Development, Harvard University, Cambridge, Massachusetts

Aug. 1991 - Oct. 1992    Deputy Assistant Attorney General for Economics  
 Antitrust Division  
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Sept. 1989 - July 1990    Visiting Professor of Economics  
 School of Management, Yale University, New Haven, Connecticut

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Mar. 1984 - June 1988    Visiting Professor of Economics  
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June 1982 - Feb. 1985    Director of Graduate Studies  
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Sept. 1982 - June 1986    Adjunct Professor of Law (part-time)  
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June 1978 - June 1982    Associate Professor of Economics  
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Sept. 1979 - May 1990    Lecturer in Economics and Antitrust  
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Sept. 1977 - June 1978    Member, Technical Staff  
 Bell Laboratories, Holmdel, New Jersey

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**OTHER PROFESSIONAL ACTIVITIES**

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 – present 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, Emoryville, 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**

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## PUBLICATIONS

### A. Journal Articles

“Coordinated Effects in Merger Analysis: An Introduction,” *Columbia Bus. Law Review*, No. 2, 2007, 411-36.

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## **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," 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.

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

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"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.

## **Appendix B**

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**EDUCATION**

Ph.D., UNIVERSITY OF CHICAGO, 1987, GRADUATE SCHOOL OF BUSINESS  
M.B.A., UNIVERSITY OF CHICAGO, 1984, GRADUATE SCHOOL OF BUSINESS  
B.A., SOUTHWESTERN AT MEMPHIS, 1981

**EMPLOYMENT**

COMPASS LEXECON (formerly Lexecon), Chicago, Illinois (3/87-Present): Senior Vice President

UNIVERSITY OF CHICAGO, (1984, 1986): Lecturer

GOVERNORS STATE UNIVERSITY, (1986): Community Professor

UNIVERSITY OF CHICAGO, (1982-1986): Teaching Assistant

UNIVERSITY OF CHICAGO, (1982-1986): Research Assistant

**ACADEMIC HONORS AND FELLOWSHIPS**

University of Chicago Fellowship, 1981-1984

H.B. Earhart Fellowship, 1985-1986

**RESEARCH PAPERS**

“Antitrust and Higher Education: Was There a Conspiracy to Restrict Financial Aid?”  
co-authored with D. Carlton and R. Epstein, RAND Journal of Economics, (Vol. 26, No. 1, Spring 1995, pp. 131-147).

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#### TESTIMONIAL EXPERIENCE

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Affidavit of Gustavo E. Bamberger in Re: Summit Family Restaurants Inc., a Delaware Corporation; HTB Restaurants Inc., a Delaware Corporation; and CKE Restaurants Inc., a Delaware Corporation vs. HomeTown Buffet, Inc., a Delaware Corporation; and Buffets, Inc., a Minnesota Corporation: In the U.S. District Court for the District of Utah, Central Division, No. 96 CV 0688B, September 17, 1996.

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Testimony and Prepared Statement of Gustavo E. Bamberger on behalf of Sacramento Municipal Utility District in Re: Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company: Before the Federal Energy Regulatory Commission Technical Conference on Structural Mitigation Options, Docket No. ER96-1663-000, January 17, 1997.

Affidavit, Report, Rebuttal Report and Deposition of Gustavo E. Bamberger in Re: Henry & Joann Rozema, Island Sports Center, Inc., Mark McKay, Lawrence Halida, Harriet Halida, and Kathleen Malek, on behalf of themselves and all others similarly situated v. The Marshfield Clinic, Security Health Plan of Wisconsin, Inc., North Central Health Protection Plan, and Rhinelander Medical Center, S.C.: In the U.S. District Court for the Western District of Wisconsin, No. 94-C-592-C, July 11, 1997 (Affidavit); July 23, 1997 (Report with William J. Lynk); September 2, 1997 (Rebuttal Report); and September 11-12, 1997 (Deposition).

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- Direct, Supplemental and Cross-Examination Testimony of Gustavo E. Bamberger in Re: Petition for Approval of a Statement of Generally Available Terms and Conditions Pursuant to §252(f) of the Telecommunications Act of 1996 and Notification of Intention to File a Petition for In-region InterLATA Authority With the FCC Pursuant to §271 of the Telecommunications Act of 1996: Before the Alabama Public Service Commission, Docket No. 25835, May 16, 2001 (Direct); June 19, 2001 (Supplemental); and June 27, 2001 (Cross-Examination).
- Affidavit of Robert H. Gertner and Gustavo E. Bamberger in the Matter of: BellSouth Telecommunications, Inc.'s Entry into InterLATA Services Pursuant To Section 271 of the Telecommunications Act of 1996: Before the Georgia Public Service Commission, Docket No. 6863-U, May 31, 2001.
- Direct Testimony of Gustavo E. Bamberger in the Matter of: Application of BellSouth Telecommunications, Inc. To Provide In-Region InterLATA Services Pursuant to Section 271 of the Telecommunications Act of 1996: Before the North Carolina Utilities Commission, Docket No. P-55, Sub 1022, June 11, 2001.
- Direct Testimony of Gustavo E. Bamberger in Re: Consideration of the Provision of In-Region InterLATA Services By BellSouth Telecommunications, Inc. Pursuant to Section 271 of the Telecommunications Act of 1996: Before the Mississippi Public Service Commission, Docket No. 97-AD-0321, June 15, 2001.
- Direct, Rebuttal and Cross-Examination Testimony of Gustavo E. Bamberger in Re: Application of BellSouth Telecommunications, Inc. to Provide In-Region InterLATA Services Pursuant to Section 271 of the Telecommunications Act of 1996: Before the Public Service Commission of South Carolina, Docket No. 2001-209-C, June 18, 2001 (Direct); July 16, 2001 (Rebuttal); and July 26-27, 2001 (Cross-Examination).

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Direct Testimony of Gustavo E. Bamberger in Re: BellSouth Telecommunications, Inc.'s Entry into Long Distance (interLATA Service) in Tennessee Pursuant to Section 271 of the Telecommunications Act of 1996: Before the Tennessee Regulatory Authority, Docket No. 97-00309, July 30, 2001.

Expert Report and Testimony of Gustavo E. Bamberger in Re: In the Arbitration of Legend Healthcare, Inc. v. United Healthcare Services, Inc., et al.: American Arbitration Association, Commercial Arbitration No. 65 Y 193 00194 00, August 1, 2001 (Report); and September 27, 2001 (Testimony).

Reply Declaration of Dennis W. Carlton, Hal S. Sider and Gustavo E. Bamberger in the Matter of: Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services: Before the Federal Communications Commission, CC Docket No. 01-337, April 22, 2002.

Expert Preliminary Report, Supplemental Expert Report, Rebuttal Expert Report, Deposition, Declaration, Supplemental Declaration and Declaration of Gustavo E. Bamberger in Re: Nobody in Particular Presents, Inc., v. Clear Channel Communications, Inc., Clear Channel Entertainment, Inc., Clear Channel Radio, Inc., Clear Channel Broadcasting Inc., KBCO-FM, KBPI-FM, KFMD-FM, KRFX-FM, and KTCL-FM, In the U.S. District Court for the District of Colorado, Civil Action No. 01-N-1523, May 3, 2002 (Preliminary Report); July 26, 2002 (Supplemental Report); August 20, 2002 (Rebuttal Report); September 17, 2002 (Deposition); October 31, 2002 (Declaration); January 24, 2003 (Supplemental Declaration); and July 21, 2003 (Declaration).

Comments Regarding Regulation of Broadband Internet Access Services in the Matter of: Inquiry Concerning High-Speed Access to Internet Over Cable and other Facilities, GN Docket No. 00-185; in the Matter of: Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147; in the Matter of: Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services, CC Docket No. 95-20; and in the Matter of: 1998 Biennial Regulatory Review: Review of Computer III and ONA Safeguards and Requirements, CC Docket No. 98-10 (with Kenneth Arrow, Gary Becker, Dennis Carlton, Daniel Fischel, Robert Gertner, Joseph Kalt and Hal Sider), May 3, 2002.

Expert Report, Reply Expert Report and Declaration of William Landes, Hal Sider and Gustavo Bamberger, and Declaration, Deposition and Supplemental Declaration of Gustavo E. Bamberger in Re: Vitamin Antitrust Litigation: In the U.S. District Court for the District of Columbia, M.D.L. No. 1285, May 23, 2002 (Report); July 17, 2002 (Reply Report); August 1, 2002 (Declaration with Landes and Sider); August 5, 2002 (Declaration); August 9, 2002 (Deposition); and September 27, 2002 (Supplemental Declaration).

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Expert Report, Deposition and Testimony of Gustavo E. Bamberger in the Matter of the Arbitration Between: Rangemark Insurance Services, Inc., Petitioner vs. Claremont Liability Insurance Company, Respondent, October 24, 2003 (Expert Report); November 14, 2003 (Deposition); and February 12, 2004 (Testimony).

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Expert Report, Deposition and Reply Expert Report of Gustavo E. Bamberger in Re: Marketing and Management Information, Inc. v. The United States: In the U.S. Court of Federal Claims, No. 99-194C, March 16, 2004 (Expert Report); April 20-21, 2004 (Deposition); and May 6, 2004 (Reply Expert Report).

Joint Expert Witness Statement of Gustavo Bamberger, David Gillen, Margaret Guerin-Calvert, Andrew Hanssen, Jerry Hausman, Timothy Hazledine, Janusz Ordover, Robert Willig and Kieran Murray; Affidavit of Gustavo Ernesto Bamberger and Dennis William Carlton in Reply; Second Affidavit of Gustavo Ernesto Bamberger and Dennis William Carlton; Affidavit of Gustavo Ernesto Bamberger; and Testimony of Gustavo Bamberger in the Matter of: An appeal from determinations of the Commerce Commission between Air New Zealand Limited, Qantas Airways Limited, Appellants and Commerce Commission, Respondents: In the High Court of New Zealand Auckland Registry, CIV 2003-404-6590, May 21, 2004 (Joint Expert Witness Statement); June 4, 2004 (Reply Affidavit); July 2, 2004 (Second Affidavit); July 12, 2004 (Affidavit of Gustavo Bamberger); and July 13-16, 2004 (Testimony).

Expert Report, Supplemental Expert Report, Deposition and Rebuttal Expert Report of Gustavo Bamberger in Re: Congoleum Corporation et al.: In United States Bankruptcy Court, District of New Jersey, Case 03-51524 (KCS), July 9, 2004 (Expert Report); January 26, 2005 (Supplemental Expert Report); February 9, 2005 and March 18, 2005 (Deposition); and February 23, 2005 (Rebuttal Expert Report).

Statement and Letter of Gustavo Bamberger in the Matter of: A La Carte and Themed Tier Programming and Pricing Options for Programming Distribution on Cable Television and Direct Broadcast Satellite Systems: Before the Federal Communications Commission, MB Docket No. 04-207, July 15, 2004 (Statement); and November 4, 2004 (Letter with Michael G. Baumann, John M. Gale, Thomas W. Hazlett, Michael L. Katz, Kent W. Mikkelsen and Bruce M. Owen).

Expert Report, Supplemental Expert Report, Deposition and Testimony of Gustavo Bamberger in Re: Braid Electric Company, Claimant vs. Square D Company / Schneider Electric, Respondent: American Arbitration Association, Case No. 51 Y 181 01712 03, August 16, 2004 (Expert Report); October 8, 2004 (Supplemental Expert Report); October 29, 2004 (Deposition); and November 15, 2005 (Testimony).

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Declaration of Gustavo Bamberger in Re: Gas Plus, a California Corporation; and Gas Plus San Marcos, Inc., a California Corporation vs. Exxon Mobil Corporation, a Corporation; Mark McEnomy, an individual; Anthony Moss, an individual; and Does 1-50, inclusive: In the Superior Court of the State of California in and for the County of San Diego, North County Division, Case No. GIN 032455, February 14, 2005.

Declaration, Expert Report, Expert Rebuttal Report and Deposition of Gustavo Bamberger in Re: Robert Ross and Randal Wachsmuth, on behalf of themselves and all others similarly situated vs. American Express Company, American Express Travel Related Services, Inc., and American Express Centurion Bank: In the U.S. District Court for the Southern District of New York, 04 CV 05723, February 18, 2005 (Declaration); September 12, 2005 (Expert Report); November 14, 2005 (Expert Rebuttal Report); and December 14, 2005 (Deposition).

Expert Report of Gustavo E. Bamberger and Dennis W. Carlton, Testimony of Gustavo E. Bamberger and Rebuttal Report of Gustavo E. Bamberger in the Matter of: EchoStar Satellite, L.L.C v. Fox Television Holdings, Inc., Fox/UTV Holdings, Inc. and News Corporation Limited: American Arbitration Association, Case No. 71 472 E 00690 04, March 2, 2005 (Expert Report); March 12, 2005 (Testimony); and April 5, 2005 (Rebuttal Report).

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Statement of Gustavo Bamberger and Lynette Neumann, Further Statement of Gustavo Bamberger and Lynette Neumann, Updated Analysis of Effect of RSN Availability on DBS Penetration (with L. Neumann); Analysis of the Effect of "Clustering" on the Availability and Penetration of Digital Cable, High-Speed Data and Telephony Services (with L. Neumann); and Supporting Declaration of Gustavo Bamberger and Lynette Neumann in Re: Applications of Adelphia Communications Corporation, Comcast Corporation, and Time Warner Cable Inc., For Authority to Assign and/or Transfer Control of Various Licenses: Before the Federal Communications Commission, MB Docket No. 05-192, July 21, 2005 (Statement); March 1, 2006 (Further Statement); March 17, 2006 (Updated Analysis); March 30, 2006 (Effect of "Clustering"); and April 5, 2006 (Supporting Declaration).

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Declaration of Gustavo Bamberger in Re: USG Corporation, a Delaware corporation, et al., Debtors, USG Corporation, et al., Movant v. Official Committee of Asbestos Personal Injury Claimants, Official Committee of Unsecured Creditors, Official Committee of Asbestos Property Damage Claimants and Legal Representative for Future Claimants, Respondents: In The U.S. District Court For The District Of Delaware, Chapter 11, Jointly Administered, Case No. 01-2094 (JKF), Civil Action No. 04-1559 (JFC) Civil Action No. 04-1560 (JFC), September 28, 2005.

Declaration, Deposition and Testimony of Gustavo Bamberger in Re: Marvin D. Chance, Jr., on behalf of himself and all other similarly situated Kansas residents, Thomas K. Osborn, on behalf of himself and all other similarly situated New York residents v. United States Tobacco Company, United States Tobacco Sales and Marketing Company, Inc., United States Tobacco Manufacturing Company, Inc., and UST, Inc.: In the District Court of Seward County, Kansas, Case No. 02-C-12, September 29, 2005 (Declaration); November 1, 2005 (Deposition); and January 19, 2006 and April 4, 2006 (Testimony).

Expert Report, Rebuttal Report and Deposition of Gustavo Bamberger in Re: Jame Fine Chemicals, Inc. (d/b/a JFC Technologies) v. Hi-Tech Pharmacal Co., Inc. v. MedPointe Inc. as successor in interest to and formerly known as Carter-Wallace, Inc., and ABC Corporation and XYZ, Inc., companies and/or corporations whose true identities are unknown to Third-Party Plaintiff: In the U.S. District Court for the District of New Jersey, Civil Action No. 00-3545 (AET), October 3, 2005 (Report); May 8, 2006 (Rebuttal Report); and June 15, 2006 (Deposition).

Deposition and second Deposition of Gustavo Bamberger in Re: John Crane, Inc. v. Admiral Insurance Company, et al., In the Circuit Court of Cook County, Illinois, County Department, Chancery Division, Case No. 04-CH-08266, October 17, 2005 (Deposition); and November 2, 2006 (Second Deposition).

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Rebuttal Testimony of Gustavo Bamberger on Damages and Deposition in Re: Tessera, Inc. vs. Micron Technology, Inc., Micron Semiconductor Products, Inc., Infineon Technologies AG, Infineon Technologies Richmond, LP, and Infineon Technologies North America Corp. and Qimonda AG: In the U.S. District Court for the Eastern District of Texas, Marshall Division, Case No. 2:05CV-94, June 23, 2006 (Rebuttal Testimony) and July 22, 2006 (Deposition).

Expert Report and Deposition of Gustavo Bamberger in Re: Electronic Data Systems Corporation and EDS Information Services, L.L.C. v. MCI Communications Services, Inc.: American Arbitration Association, Arbitration No. 13 181 00976 06, July 20, 2006 (Expert Report); and August 11, 2006 (Deposition).

Declaration, Revised Declaration and Deposition of Gustavo Bamberger in Re: Jason Feuerabend, a Wisconsin resident, on behalf of himself and all others similarly situated v. UST Inc., U.S. Smokeless Tobacco Brands Inc., U.S. Smokeless Tobacco Co., U.S. Smokeless Tobacco Manufacturing Limited Partnership, and Does 1-20 inclusive: In the Circuit Court of Milwaukee County, Wisconsin, Case No. 02CV007124, September 21, 2006 (Declaration); December 1, 2006 (Revised Declaration); and December 5, 2006 (Deposition).

Expert Report of Gustavo Bamberger in Re: Ronald Alcorn, d/b/a Highland Park Amoco; et al. vs. BP Products North America, Inc.: In the United States District Court for the District of Minnesota, Court File No. 04-120 (PAM/JSM), October 23, 2006.

Declaration of Gustavo Bamberger in Re: Smokeless Tobacco Cases I-IV: In the Superior Court of the State of California, City and County of San Francisco, Judicial Council Coordination Proceeding Nos. 4250, 4258, 4259 & 4262, March 21, 2007.

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Declaration of Gustavo Bamberger and Lynette Neumann in Re: In the Matter of National Exchange Carrier Association, Inc.'s Proposed 2007 Modification of Average Schedule Formulas: Before the Federal Communications Commission: WC Docket No. 06-223, May 4, 2007.

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Declaration of Gustavo Bamberger in Re: Massachusetts Smokeless Tobacco Litigation: In the Superior Court of the Commonwealth of Massachusetts, Superior Court Dept. Docket No. 03-0320, Case No. 02-5038 BLS, August 1, 2007.

Statement of Evidence, Reply Statement of Evidence and Testimony of Gustavo Ernesto Bamberger in the Matter of: Each an appeal against a determination of the Commerce Commission between Woolworths Limited, Appellant and the Commerce Commission, Respondent, and Foodstuffs (Auckland) Limited, Foodstuffs South Island Limited, Foodstuffs (Wellington) Co-Operative Society Limited, Appellants and the Commerce Commission, Respondent, and The Warehouse Group Limited, Appellant and the Commerce Commission, Respondent: In the High Court of New Zealand Wellington Registry, CIV 2007-485-1255, CIV 2007-485-1379 and CIV 2007-485-1731, September 20, 2007 (Statement); October 29, 2007 (Reply Statement); and October 29-31, 2007 (Testimony).

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Declaration of Gustavo Bamberger in Re: Burns & Roe Enterprises, Inc., et al., Debtors: In the United States Bankruptcy Court, District of New Jersey, Case Nos. 00-41610(RG) and 05-47946(RG) (Consolidated), October 17, 2007.

Statement, Report and Deposition of Gustavo Bamberger in Re: American Optical Corporation, Warner-Lambert Company, LLC, and W-L LLC v. Admiral Insurance Company, et al.: In the Superior Court of New Jersey Law Division: Union County, Docket No. UNN-L-2505-01, December 13, 2007 (Statement); December 26, 2007 (Report); and February 12, 2008 (Deposition).

Declaration of Gustavo E. Bamberger in Support of Plaintiffs' Opposition to Defendants' Motion for Partial Summary Judgment on Plaintiffs' Per Se Claim, Deposition and Declaration in Re: ATM Fee Antitrust Litigation: In the United States District Court, Northern District of California, Master File No. C04-2676 CRB, December 21, 2007 (Declaration); February 1, 2008 (Deposition); and August 20, 2010 (Declaration).

Declaration, Deposition, Reply Declaration and Deposition of Gustavo Bamberger in Re: Payment Card Interchange Fee and Merchant-Discount Antitrust Litigation: In the United States District Court, Eastern District of New York, Master File No. 1:05-md-1720-JG-JO, May 8, 2008 (Declaration); July 30-31, 2008 (Deposition); January 29, 2009 (Reply Declaration); and May 27, 2009 (Deposition).

Statement of Janusz Ordoover and Gustavo Bamberger, filed with the Securities and Exchange Commission, Release No. 34-57917, on behalf of NASDAQ Stock Market, August 1, 2008.

Expert Report, Deposition, Expert Rebuttal Report, Testimony, Rebuttal Testimony, Supplemental Expert Report, Supplemental Expert Rebuttal Report and Deposition of Gustavo Bamberger in Re: Valassis Communications, Inc. v. News America Incorporated, a/k/a News America Marketing Group, News America Marketing FSI, Inc. a/k/a News America Marketing FSI, LLC and News America Marketing In-Store Services, Inc. a/k/a News America Marketing In-Store Services, LLC: In the United States District Court, Eastern District of Michigan, Southern Division, Case No. 2:06-cv-10240 and State Court of Michigan, in the Circuit Court for the County of Wayne, Case No. 07-706645-CZ, November 21, 2008 (Expert Report); December 23, 2008 (Deposition); February 6, 2009 (Expert Rebuttal Report); Testimony (June 11, 2009); Rebuttal Testimony (July 16, 2009); Supplemental Expert Report (December 21, 2009); Supplemental Expert Rebuttal Report (January 14, 2010); and Deposition (January 19, 2010) (Case No. 2:06-cv-10240 only for Supplemental Reports and second deposition).

Brief of Evidence of Dennis William Carlton and Gustavo Ernesto Bamberger, Affidavit of Gustavo Ernesto Bamberger in support of amended notice of opposition by the Commerce Commission to the amended notice of application by the bank defendants and the notice of application by MasterCard for orders as to admissibility of evidence, and Reply Brief of Evidence of Dennis William Carlton and Gustavo Ernesto Bamberger in the Matter of: The Commerce Commission, Plaintiff and Cards NZ Limited, First Defendant and others and DSE (NZ) Limited, First Plaintiff and others and Card NZ Limited, First Defendants and others: In the High Court of New Zealand Auckland Registry, CIV 2006-485-2535 and CIV-2006-485-2693, May 4, 2009 (Brief of Evidence); May 20, 2009 (Affidavit); September 4, 2009 (Reply Brief).

Expert Report of Gustavo Bamberger in Re: Valassis Communications, Inc. v. News America Incorporated, a/k/a News America Marketing Group, News America Marketing FSI, Inc. a/k/a News America Marketing FSI, LLC and News America Marketing In-Store Services, Inc. a/k/a News America Marketing In-Store Services, LLC: In the Superior Court of the State of California for the County of Los Angeles, May 11, 2009.

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Report and Reply Report of Dennis W. Carlton and Gustavo E. Bamberger and Cross-Examination of Gustavo E. Bamberger in Re: Air Canada and Toronto Port Authority and Porter Airlines Inc.: Federal Court, File No. 10-T-6, February 5, 2010 (Report); May 18, 2010 (Reply Report); and June 15, 2010 (Cross-Examination).

Expert Report of Daniel R. Fischel and Gustavo E. Bamberger in Re: Genetically Modified Rice Litigation: In the United States District Court, Eastern District of Missouri, Eastern Division, Texana Rice Mill, Ltd., et al. v. Bayer CropScience, LP, et al., Case No. 4:07-cv-00416 CDP; Gulf Pacific Rice Co., Inc., et al. v. Bayer CropScience, LP, et al., Case No. 4:08-cv-1545-CDP; Phoenix Advisors Limited v. Bayer CropScience, LP, et al., Case No. 4:08-cv-1794-CDP; Farmers Rice Milling Co., Inc. v. Bayer CropScience, LP, et al., Case No. 4:07-cv-01780-CDP; Kennedy Rice Dryers, L.L.C. v. Bayer CropScience, LP, et al., Case No. 4:07-cv-01773-CDP; Planters Rice Mill, L.L.C. v. Bayer CropScience, LP, et al., Case No. 4:07-cv-01795-CDP; Beaumont Rice Mills, Inc. v. Bayer CropScience, LP, et al., Case No. 4:07-cv-00524-CDP; Master Case No. 4:06 MD 1811 CDP, April 23, 2010.

Expert Report of Daniel R. Fischel and Gustavo E. Bamberger and Deposition of Gustavo E. Bamberger in Re: Genetically Modified Rice Litigation: In the United States District Court, Eastern District of Missouri, Eastern Division, Tilda Ltd v. Riceland Foods, Inc., Producers Rice Mill, Inc., Bayer Cropscience Inc., and Bayer Cropscience LP; Producers Rice Mill, Inc. v. Bayer Cropscience LP and Bayer Cropscience Holding Inc., Bayer Corporation, Bayer Cropscience AG, Bayer AG, and Bayer Bioscience nv, Case No. 4:07-Cv-00457, Master Case No. 4:06 MD 1811 CDP, July 14, 2010 (Expert Report); and September 15, 2010 (Deposition).

Declaration of Gustavo Bamberger in Re: Credit/Debit Card Tying Cases: In the Superior Court for the State of California, City and County of San Francisco, J.C.C.P. No.: 4335, July 29, 2010.

Expert Report of Daniel R. Fischel, Gustavo E. Bamberger and David K.A. Mordecai in Response to the Reports of Professors Carter and Babcock in Re: Genetically Modified Rice Litigation: In the United States District Court, Eastern District of Missouri, Eastern Division, Master Case No. 4:06 MD 1811 CDP, July 30, 2010.

Expert Report of Daniel R. Fischel, Gustavo E. Bamberger and David K.A. Mordecai in Response to the Report of Dr. Ford in Re: Genetically Modified Rice Litigation: In the United States District Court, Eastern District of Missouri, Eastern Division, Master Case No. 4:06 MD 1811 CDP, July 30, 2010.

Report of Dennis W. Carlton and Gustavo E. Bamberger for Vector Limited to the New Zealand Commerce Commission, August 23, 2010.

Expert Report of Gustavo Bamberger in Re: JOC Inc. T/A Summit Exxon and Sung Eel Chang Auto, Inc. T/A Ashwood Exxon vs. ExxonMobil Oil Corporation: In the United States District Court for the District of New Jersey, Civil Action No.: 08-05344 (FSH) (PS), September 27, 2010.

**EXHIBIT 5**

The text of the proposed rule change is below. Proposed new language is underlined; deletions are bracketed.

**7047. NASDAQ Basic**

(a) NASDAQ shall offer proprietary data feeds containing real-time market information from the NASDAQ Market Center and the FINRA/NASDAQ Trade Reporting Facility (“TRF”).

(1) “NASDAQ Basic for NASDAQ” shall contain NASDAQ’s best bid and offer and last sale for NASDAQ-listed stocks from NASDAQ and the FINRA/NASDAQ TRF; and

(2) “NASDAQ Basic for NYSE” shall contain NASDAQ’s best bid and offer and last sale for NYSE-listed stocks from NASDAQ and the FINRA/NASDAQ TRF.

(3) “NASDAQ Basic for NYSE MKT” shall contain NASDAQ’s best bid and offer and last sale for stocks listed on NYSE MKT[-listed stocks] and other Tape B listing venues from NASDAQ and the FINRA/NASDAQ TRF.

(b) User Fees

(1) Except as provided in (b)(2) [and] through (b)(3)(5), for the NASDAQ Basic product there shall be a per [s]Subscriber monthly charge of \$[10]13 for [NASDAQ-listed stocks] NASDAQ Basic for NASDAQ, \$[5]6.50 for [NYSE-listed stocks]NASDAQ Basic for NYSE, and \$[5]6.50 for [NYSE MKT-listed stocks] NASDAQ Basic for NYSE MKT; or

(2) For each [n]Non-[p]Professional [s]Subscriber[, as defined in Rule 7011(b)], there shall be a per [s]Subscriber monthly charge of \$0.50 for [NASDAQ-listed stocks]NASDAQ Basic for NASDAQ, \$0.25 for [NYSE-listed stocks]NASDAQ Basic for NYSE, and \$0.25 for [NYSE MKT-listed stocks]NASDAQ Basic for NYSE MKT; or

(3) There shall be a per query fee for NASDAQ Basic of \$0.0025 for [NASDAQ-listed stocks]NASDAQ Basic for NASDAQ, \$0.0015 for [NYSE-listed stocks]NASDAQ Basic for NYSE, and \$0.0015 for [NYSE MKT-listed stocks]NASDAQ Basic for NYSE MKT.

(4) As an alternative to (b)(1), a broker-dealer may purchase an enterprise license for internal Professional Subscribers to receive NASDAQ Basic for NASDAQ, NASDAQ Basic for NYSE, and NASDAQ Basic for NYSE MKT. The fee will be \$365,000 per month; provided, however, that if the broker-dealer obtains the license with respect to usage of NASDAQ Basic provided by an External Distributor that controls display of the product, the fee will be \$365,000 per month for up to 16,000 internal Professional Subscribers, plus \$2 for each additional internal Professional Subscriber over 16,000. A broker-dealer that purchases an enterprise license under this provision may also receive, at no additional charge, access to NASDAQ Last Sale data (as described in Rule 7039)

for its own stock price and the stock price of up to ten of its competitors or peers, for display use on the broker-dealer's internal website. The enterprise license is in addition to the Distributor Fee listed in (c)(1).

[(4)] (5) As [A]an alternative to (b)(2), a broker-dealer may purchase an enterprise license at a rate of \$100,000 per month for distribution to [n]Non-[p]Professional [s]Subscribers. The enterprise license entitles a Distributor to provide Nasdaq Basic to an unlimited number of [n]Non-[p]Professional [s]Subscribers with whom the firm has a brokerage relationship. The enterprise license is in addition to the Distributor Fee listed in (c)(1).

(6) For purposes of calculating the number of Professional Subscribers receiving NASDAQ Basic for Display Usage, the following netting rules will be applied:

(A) A Subscriber that receives access to NASDAQ Basic through multiple products controlled by an Internal Distributor will be considered one Subscriber.

(B) A Subscriber that receives access to NASDAQ Basic through multiple products controlled by one External Distributor will be considered one Subscriber.

(C) A Subscriber that receives access to NASDAQ Basic through one or more products controlled by an Internal Distributor and also one or more products controlled by one External Distributor will be considered one Subscriber.

(D) A Subscriber that receives access to NASDAQ Basic through one or more products controlled by an Internal Distributor and also products controlled by multiple External Distributors will be treated as one Subscriber with respect to the products controlled by the Internal Distributor and one of the External Distributors, and will be treated as an additional Subscriber for each additional External Distributor. Thus, a Subscriber receiving products through an Internal Distributor and two External Distributors will be treated as two Subscribers.

(c) Distributor Fees

(1) Each Distributor of any NASDAQ Basic product shall pay a fee of \$1,500 per month for either internal or external distribution or both.

(2) Each Distributor will receive a credit against its monthly Distributor Fee for NASDAQ Basic equal to the amount of its monthly user fees for NASDAQ Basic up to a maximum of \$1,500.

(3) A Distributor may pay \$1,500 per month to distribute data derived from Nasdaq Basic to an unlimited number of non-professional subscribers. This fee is in addition to the Distributor Fee listed in (c)(1).

(d) Definitions.

[(4)](1) The term “Distributor” [shall have the same meanings as set forth in Rule 7019] refers to any entity that receives NASDAQ Basic data directly from NASDAQ or indirectly through another entity and then distributes it to one or more Subscribers.

(A) “Internal Distributors” are Distributors that receive NASDAQ Basic data and then distribute that data to one or more Subscribers within the Distributor's own entity.

(B) “External Distributors” are Distributors that receive NASDAQ Basic data and then distribute that data to one or more Subscribers outside the Distributor's own entity.

(2) “Display Usage” means any method of accessing NASDAQ Basic data that involves the display of such data on a screen or other visualization mechanism for access or use by a natural person or persons.

(3) “Professional/Non-Professional Subscriber” refers to the classification of types of Subscribers.

(A) A “Non-Professional Subscriber” is a natural person who is not (i) registered or qualified in any capacity with the Commission, the Commodity Futures Trading Commission, any state securities agency, any securities exchange or association, or (ii) any commodities or futures contract market or association; engaged as an “investment adviser” as that term is defined in Section 201(11) of the Investment Advisers Act of 1940 (whether or not registered or qualified under that Act); or (iii) employed by a bank or other organization exempt from registration under federal or state securities laws to perform functions that would require registration or qualification if such functions were performed for an organization not so exempt.

(B) A “Professional Subscriber” is any Subscriber other than a Non-Professional Subscriber.