

SECURITIES AND EXCHANGE COMMISSION  
(Release No. 34-59039; File No. SR-NYSEArca-2006-21)

December 2, 2008

Self-Regulatory Organizations; NYSE Arca, Inc.; Order Setting Aside Action by Delegated Authority and Approving Proposed Rule Change Relating to NYSE Arca Data

On May 23, 2006, NYSE Arca, Inc. (“NYSE Arca” or “Exchange”) filed with the Securities and Exchange Commission (“Commission” or “SEC”), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Exchange Act”)<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> a proposed rule change (“Proposal”) to establish fees for the receipt and use of certain market data that the Exchange makes available. The Proposal was published for comment in the Federal Register on June 9, 2006.<sup>3</sup> On October 12, 2006, the Commission issued an order, by delegated authority, approving the Proposal.<sup>4</sup> On November 6, 2006, NetCoalition (“Petitioner”) submitted a notice, pursuant to Rule 430 of the Commission’s Rules of Practice, indicating its intention to file a petition requesting that the Commission review and set aside the Delegated Order.<sup>5</sup> On November 8, 2006, the Exchange submitted a response to the Petitioner’s Notice.<sup>6</sup> On November 15, 2006,

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

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

<sup>3</sup> Securities Exchange Act Release No. 53952 (June 7, 2006), 71 FR 33496 (June 9, 2006).

<sup>4</sup> Securities Exchange Act Release No. 54597 (October 12, 2006) 71 FR 62029 (October 20, 2006) (“Delegated Order”).

<sup>5</sup> Letter from Markham C. Erikson, Executive Director and General Counsel, NetCoalition, to the Honorable Christopher Cox, Chairman, SEC, dated November 6, 2006 (“Notice”).

<sup>6</sup> Letter from Mary Yeager, Corporate Secretary, NYSE Arca Inc., to the Honorable

Petitioner submitted its petition requesting that the Commission review and set aside the Delegated Order.<sup>7</sup> On December 27, 2006, the Commission issued an order: (1) granting Petitioner’s request for the Commission to review the Delegated Order; (2) allowing any party or other person to file a statement in support of or in opposition to the action made by delegated authority; and (3) continuing the effectiveness of the automatic stay provided in Rule 431(e) of the Commission’s Rules of Practice.<sup>8</sup> The Commission received 25 comments regarding the Petition.<sup>9</sup>

On June 4, 2008, the Commission published notice of a proposed order (“Draft Order”) approving the NYSE Arca proposed fees to give the public an additional opportunity to comment.<sup>10</sup> The Commission received 16 comments and three economic assessments in response to the Draft Order.

The Commission has considered the Petition, comments, and economic assessments submitted in response to the Proposal, Petition, and Draft Order. For the reasons described below, it is setting aside the earlier action taken by delegated authority and approving the Proposal directly.

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Christopher Cox, Chairman, SEC, dated November 8, 2006 (“NYSE ARCA Petition Response”).

<sup>7</sup> Petition for Commission Review submitted by Petitioner, dated November 14, 2006 (“Petition”).

<sup>8</sup> Securities Exchange Act Release No. 55011 (December 27, 2006).

<sup>9</sup> The comments on the Petition, as well as the earlier comments on the Proposal, are identified and summarized in section III below. NYSE Arca’s responses to the commenters are summarized in section IV below. Comments on the Draft Order are summarized in section V below.

<sup>10</sup> Securities Exchange Act Release No. 57917 (June 4, 2008), 73 FR 32751 (June 10, 2008) (“Draft Order”).

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### **I. Introduction**

The Commission's Rules of Practice set forth procedures for the review of actions made pursuant to delegated authority. Rule 431(b)(2) provides that the Commission, in deciding whether to accept or decline a discretionary review, will consider the factors set

forth in Rule 411(b)(2). One of these factors is whether an action pursuant to delegated authority embodies a decision of law or policy that is important and that the Commission should review.

The Petitioner and commenters raised a number of important issues that the Commission believes it should address directly at this time. In particular, section VI below addresses issues related to the nature of the Commission's review of proposed rule changes for the distribution of "non-core" market data, which includes the NYSE Arca data that is the subject of the Proposal. Individual exchanges and other market participants distribute non-core data independently. Non-core data should be contrasted with "core" data -- the best-priced quotations and last sale information of all markets in U.S.-listed equities that Commission rules require to be consolidated and distributed to the public by a single central processor.<sup>11</sup> Pursuant to the authority granted by Congress under Section 11A of the Exchange Act, the Commission requires the self-regulatory organizations ("SROs") to participate in joint-industry plans for disseminating core data, and requires broker-dealers and vendors to display core data to investors to help inform their trading and order-routing decisions. In contrast, no Commission rule requires exchanges or market participants either to distribute non-core data to the public or to display non-core data to investors.

Price transparency is critically important to the efficient functioning of the equity markets. In 2006, the core data feeds reported prices for more than \$39.4 trillion in transactions in U.S.-listed equities.<sup>12</sup> In 2006, U.S. broker-dealers earned \$21.7 billion in

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<sup>11</sup> See section VI.A below for a fuller discussion of the arrangements for distributing core and non-core data.

<sup>12</sup> Source: ArcaVision (available at [www.arcavision.com](http://www.arcavision.com)).

commissions from trading in U.S.-listed equities – an amount that does not include any revenues from proprietary trading by U.S. broker-dealers or other market participants.<sup>13</sup> Approximately 420,000 securities industry professionals subscribe to the core data products of the joint-industry plans, while only about 5% of these professionals have chosen to subscribe to the non-core data products of exchanges.<sup>14</sup>

In June 2008, NYSE Arca executed a 16.5% share of trading in U.S.-listed equities.<sup>15</sup> The reasonably projected revenues from the proposed fees for NYSE Arca’s non-core data are \$8 million per year.<sup>16</sup> Commenters opposing the Proposal claimed that NYSE Arca exercised monopoly power to set excessive fees for its non-core data and recommended that the Commission adopt a “cost-of-service” ratemaking approach when reviewing exchange fees for non-core data – an approach comparable to the one traditionally applied to utility monopolies.<sup>17</sup>

In 2005, however, the Commission stated its intention to apply a market-based approach that relies primarily on competitive forces to determine the terms on which non-core data is made available to investors.<sup>18</sup> This approach follows the clear intent of Congress in adopting Section 11A of the Exchange Act that, whenever possible,

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<sup>13</sup> Frank A. Fernandez, Securities Industry and Financial Markets Association Research Report, “Securities Industry Financial Results: 2006” (May 2, 2006) (“SIFMA Research Report”), at 7-9, 21.

<sup>14</sup> See note 233 below and accompanying text.

<sup>15</sup> See note 205 below and accompanying text.

<sup>16</sup> See note 318 below and accompanying text.

<sup>17</sup> The commenters’ views are summarized in section III.A.2 below.

<sup>18</sup> Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37496, 37566-37568 (June 29, 2005) (“Regulation NMS Release”).

competitive forces should dictate the services and practices that constitute the U.S. national market system for trading equity securities. Section VI discusses this market-based approach and applies it in the specific context of the Proposal by NYSE Arca. The Commission is approving the Proposal primarily because NYSE Arca was subject to significant competitive forces in setting the terms of the Proposal. The Commission believes that reliance on competitive forces, whenever possible, is the most effective means to assess whether proposed fees for non-core data meet the applicable statutory requirements.

The Petitioner and commenters discussed and recommended solutions for a wide range of market data issues that were beyond the scope of the Proposal. The Petitioner particularly called attention to the data needs of users of advertiser-supported Internet web sites, many of whom are individual retail investors. In this regard, the Commission recognizes that exchanges have responded by developing innovative new data products specifically designed to meet the reference data needs and economic circumstances of these Internet users.<sup>19</sup>

As noted in section III.A.1 below, some commenters also suggested that, pending a comprehensive resolution of all market data issues (including those related to core data), the Commission should impose a moratorium on all proposed rule changes related to market data. The Commission recognizes the importance of many of the issues raised by commenters relating to core data that are beyond the scope of the Proposal. It is continuing to consider these issues, and others, as part of its ongoing review of SRO

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<sup>19</sup> See Securities Exchange Act Release No. 57966 (June 16, 2008), 73 FR 35182 (June 20, 2008) (File No. SR-NYSE-2007-04) (NYSE Real-Time Reference Prices); Securities Exchange Act Release No. 57965 (June 16, 2008), 73 FR 35178 (June 20, 2008) (SR-NASDAQ-2006-060) (Nasdaq Last Sale Data Feeds).

structure, governance, and transparency.<sup>20</sup> The Commission does not, however, believe that imposing a moratorium on the review of proposed rule changes related to market data products and fees would be appropriate or consistent with the Exchange Act. A primary Exchange Act objective for the national market system is to promote fair competition.<sup>21</sup> Failing to act on the proposed rule changes of particular exchanges would be inconsistent with this Exchange Act objective, as well as with the requirements pertaining to SRO rule filings more generally. Accordingly, the Commission will continue to act on proposed rule changes for the distribution of market data in accordance with the applicable Exchange Act requirements.

## II. Description of Proposal

Through NYSE Arca, LLC, the equities trading facility of NYSE Arca Equities, Inc., the Exchange makes available on a real-time basis ArcaBook<sup>SM</sup>, a compilation of all limit orders resident in the NYSE Arca limit order book. In addition, the Exchange makes available real-time information relating to transactions and limit orders in debt securities that are traded through the Exchange's facilities. The Exchange makes ArcaBook and the bond transaction and limit order information (collectively, "NYSE Arca Data") available to market data vendors, broker-dealers, private network providers, and other entities by means of data feeds. Currently, the Exchange does not charge fees for the receipt and use of NYSE Arca Data.

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<sup>20</sup> See Securities Exchange Act Release No. 50699 (November 18, 2004), 69 FR 71126 (December 8, 2004) (proposed rules addressing SRO governance and transparency); Securities Exchange Act Release No. 50700 (November 18, 2004), 69 FR 71256 (December 8, 2004) ("Concept Release Concerning Self-Regulation").

<sup>21</sup> Section 11A(a)(1)(C)(ii) of the Exchange Act, 15 U.S.C. 78k-1(a)(1)(C)(ii).

The Exchange’s proposal would establish fees for the receipt and use of NYSE Arca Data. Specifically, the Exchange proposes to establish a \$750 per month access fee for access to the Exchange’s data feeds that carry the NYSE Arca Data. In addition, the Exchange proposes to establish professional and non-professional device fees for the NYSE Arca Data.<sup>22</sup> For professional subscribers, the Exchange proposes to establish a monthly fee of \$15 per device for the receipt of ArcaBook data relating to exchange-traded funds (“ETFs”) and those equity securities for which reporting is governed by the CTA Plan (“CTA Plan and ETF Securities”) and a monthly fee of \$15 per device for the receipt of ArcaBook data relating to those equity securities, excluding ETFs, for which reporting is governed by the Nasdaq UTP Plan (“Nasdaq UTP Plan Securities”).<sup>23</sup> For non-professional subscribers, the Exchange proposes to establish a monthly fee of \$5 per device for the receipt of ArcaBook data relating to CTA Plan and ETF Securities and a monthly fee of \$5 per device for the receipt of ArcaBook data relating to Nasdaq UTP Plan Securities.<sup>24</sup>

The Exchange also proposes a maximum monthly payment for device fees paid by any broker-dealer for non-professional subscribers that maintain brokerage accounts

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<sup>22</sup> In differentiating between professional and non-professional subscribers, the Exchange proposes to apply the same criteria used by the Consolidated Tape Association Plan (“CTA Plan”) and the Consolidated Quotation Plan (“CQ Plan”) for qualification as a non-professional subscriber. The two plans, which have been approved by the Commission, are available at [www.nysedata.com](http://www.nysedata.com).

<sup>23</sup> The “Nasdaq UTP Plan” is the Joint Self-Regulatory Organization Plan Governing the Collection, Consolidation and Dissemination of Quotation and Transaction Information for Nasdaq-Listed Securities Traded on Exchanges on an Unlisted Trading Privileges Basis. The plan, which has been approved by the Commission, is available at [www.utpdata.com](http://www.utpdata.com).

<sup>24</sup> There will be no monthly device fees for limit order and last sale price information relating to debt securities traded through the Exchange’s facilities.

with the broker-dealer.<sup>25</sup> For 2006, the Exchange proposed a \$20,000 maximum monthly payment. For the months falling in a subsequent calendar year, the maximum monthly payment will increase (but not decrease) by the percentage increase (if any) in the annual composite share volume<sup>26</sup> for the calendar year preceding that subsequent calendar year, subject to a maximum annual increase of five percent.

Lastly, the Exchange proposes to waive the device fees for ArcaBook data during the duration of the billable month in which a subscriber first gains access to the data.

### III. Summary of Comments Received

The Commission received four comments from three commenters regarding the Proposal after it was published for comment.<sup>27</sup> NYSE Arca responded to the

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<sup>25</sup> Professional subscribers may be included in the calculation of the monthly maximum amount so long as: (1) nonprofessional subscribers comprise no less than 90% of the pool of subscribers that are included in the calculation; (2) each professional subscriber that is included in the calculation is not affiliated with the broker-dealer or any of its affiliates (either as an officer, partner or employee or otherwise); and (3) each such professional subscriber maintains a brokerage account directly with the broker-dealer (that is, with the broker-dealer rather than with a correspondent firm of the broker-dealer).

<sup>26</sup> “Composite share volume” for a calendar year refers to the aggregate number of shares in all securities that trade over NYSE Arca facilities for that calendar year.

<sup>27</sup> Web comment from Steven C. Spencer, dated June 18, 2006 (“Spencer Letter”); letter from Markham C. Erickson, Executive Director and General Counsel, NetCoalition, to Christopher Cox, Chairman, Commission, dated August 9, 2006 (“NetCoalition I”); and letters from Gregory Babyak, Chairman, Market Data Subcommittee of the Securities Industry Association (“SIA”) Technology and Regulation Committee, and Christopher Gilkerson, Chairman, SIA Technology and Regulation Committee, to Nancy Morris, Secretary, Commission, dated June 30, 2006 (“SIFMA I”) and August 18, 2006 (“SIFMA II”). The SIA has merged into the Securities Industry and Financial Markets Association (“SIFMA”).

comments.<sup>28</sup> After granting the Petition, the Commission received 25 comments from 17 commenters regarding the approval of the Proposal by delegated authority.<sup>29</sup> Nine

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<sup>28</sup> Letters from Janet Angstadt, Acting General Counsel, NYSE Arca, to Nancy J. Morris, Secretary, Commission, dated July 25, 2006 (“NYSE Arca Response I”), and August 25, 2006 (“NYSE Arca Response II”).

<sup>29</sup> Letters from Christopher Gilkerson and Gregory Babyak, Co-Chairs, Market Data Subcommittee of SIFMA Technology and Regulation Committee, dated February 14, 2008 (“SIFMA VIII”); Ira D. Hammerman, Senior Managing Director and General Counsel, SIFMA, dated February 7, 2007 (“SIFMA VII”); Markham C. Erickson, Executive Director and General Counsel, NetCoalition, dated January 11, 2008 (“NetCoalition V”); The Honorable Paul E. Kanjorski, Chairman, Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises, dated December 12, 2007 (“Kanjorski Letter”); Melissa MacGregor, Vice President and Assistant General Counsel, SIFMA, dated November 7, 2007 (“SIFMA VI”); The Honorable Richard H. Baker, Member of Congress, dated October 1, 2007 (“Baker Letter”); Markham C. Erickson, Executive Director and General Counsel, NetCoalition, dated September 14, 2007 (“NetCoalition IV”); Ira D. Hammerman, Senior Managing Director and General Counsel, SIFMA, dated August 1, 2007 (“SIFMA V”); Jeffrey Davis, Vice President and Deputy General Counsel, The Nasdaq Stock Market (“Nasdaq”), dated May 18, 2007 (“Nasdaq Letter”); David T. Hirschmann, Senior Vice President, Chamber of Commerce of the United States of America, dated May 3, 2007 (“Chamber of Commerce Letter”); Markham C. Erickson, Executive Director and General Counsel, NetCoalition, dated March 6, 2007 (“NetCoalition III”); Ira D. Hammerman, Senior Managing Director and General Counsel, SIFMA, dated March 5, 2007 (“SIFMA IV”); Joseph Rizzello, Chief Executive Officer, National Stock Exchange (“NSX”), dated February 27, 2007 (“NSX Letter”); Keith F. Higgins, Chair, Committee on Federal Regulation of Securities, American Bar Association (“ABA”), dated February 12, 2007 (“ABA Letter”); James A. Forese, Managing Director and Head of Global Equities, Citigroup Global Markets Inc. (“Citigroup”), dated February 5, 2007 (“Citigroup Letter”); Meyer S. Frucher, Chairman and Chief Executive Officer, PHLX, dated January 31, 2007 (“PHLX Letter”); Amex, Boston Stock Exchange, Chicago Board Options Exchange, Chicago Stock Exchange, ISE, The Nasdaq Stock Market, NYSE, NYSE Arca, and Philadelphia Stock Exchange (“PHLX”) (collectively, the “Exchange Market Data Coalition”), dated January 26, 2007 (“Exchange Market Data Coalition Letter”); Oscar N. Onyema, Senior Vice President and Chief Administrative Officer, American Stock Exchange LLC (“Amex”), dated January 18, 2007 (“Amex Letter”); Sanjiv Gupta, Bloomberg, dated January 17, 2007 (“Bloomberg Letter”); Richard M. Whiting, Executive Director and General Counsel, Financial Services Roundtable, dated January 17, 2007 (“Financial Services Roundtable Letter”); Markham C. Erickson, Executive Director and General Counsel, NetCoalition, dated January 17, 2007 (“NetCoalition II”); Michael J. Simon,

commenters urged the Commission to set aside the action by delegated authority,<sup>30</sup> and five commenters supported the action by delegated authority.<sup>31</sup> One commenter expressed no views regarding the specifics of the Proposal, but urged the Commission to address market data fees as part of a more comprehensive modernization of SROs in light of recent market structure developments.<sup>32</sup> NYSE Arca responded to the comments submitted after the Commission granted the Petition.<sup>33</sup> Three commenters submitted additional comments addressing NYSE Arca's response and arguments raised by other commenters, or provided additional information.<sup>34</sup>

The comments submitted in connection with the Proposal and the Petition are summarized in this section. NYSE Arca's responses are summarized in section IV below.

A. Commenters Opposing the Action by Delegated Authority

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Secretary, International Securities Exchange, LLC ("ISE"), dated January 17, 2007 ("ISE Letter"); Jeffrey T. Brown, Senior Vice President, Office of Legislative and Regulatory Affairs, Charles Schwab & Co., Inc. ("Schwab"), dated January 17, 2007 ("Schwab Letter"); and Ira Hammerman, Senior Managing Director and General Counsel, SIFMA, dated January 17, 2007 ("SIFMA III"); and letter from David Keith, Vice President, Web Products and Solutions, The Globe and Mail, to the Honorable Christopher Cox, Chairman, Commission, dated January 17, 2007 ("Globe and Mail Letter").

<sup>30</sup> SIFMA III and IV, and Bloomberg, Chamber of Commerce, Citigroup, Financial Services Roundtable, Globe and Mail, NetCoalition, NSX, and Schwab Letters.

<sup>31</sup> Amex, Exchange Market Data Coalition, ISE, Nasdaq, and PHLX Letters.

<sup>32</sup> ABA Letter at 1.

<sup>33</sup> Letter from Mary Yeager, Corporate Secretary, NYSE Arca, to the Honorable Christopher Cox, Chairman, Commission, dated February 6, 2007 ("NYSE Arca Response III").

<sup>34</sup> Nasdaq Letter; SIFMA IV, V, and VI; NetCoalition III and IV.

1. Need for a Comprehensive Review of Market Data Issues

Several commenters seeking a reversal of the staff's approval of the Proposal by delegated authority believed that recent regulatory and market structure developments warrant a broader review of market data fees and of the Commission's procedures for reviewing and evaluating market data proposals.<sup>35</sup> According to these commenters, these developments include the transformation of most U.S. securities exchanges into for-profit entities; the increasing importance of single-market depth-of-book information following decimalization and the adoption of Regulation NMS; and the absence of competitive forces that could limit the fees that an exchange may charge for its depth-of-book data. Some commenters believed that the Commission should consider not only market data fees, but also the contract terms governing the use of an exchange's market data, which may impose additional costs and include restrictions on the use of the data.<sup>36</sup>

In light of the significance and complexity of the issues raised, several commenters asked the Commission not only to reverse the staff's action, but also to impose a moratorium on the approval or processing of market data proposals while the Commission conducts a broader review of the issues associated with market data, including "the underlying issues of market structure, market power, transparency, and ease of dissemination and analysis of market data."<sup>37</sup>

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<sup>35</sup> Citigroup Letter at 2; SIFMA III at 10, 26; SIFMA IV at 15. See also ABA Letter at 1; Bloomberg Letter at 7-8; NetCoalition I at 2; NetCoalition III at 13. Among other things, the Bloomberg and Citigroup Letters support the recommendations in SIFMA III. Bloomberg Letter at 8 n. 19; Citigroup Letter at 1.

<sup>36</sup> Citigroup Letter at 2; SIFMA III at 23.

<sup>37</sup> Citigroup Letter at 2. See also ABA Letter at 3; Financial Services Roundtable Letter at 1; NetCoalition III at 13; Schwab Letter at 1; SIFMA III at 26; SIFMA IV at 15.

## 2. Need for a Cost-Based Justification of Market Data Fees

Several commenters argued that the staff erred in approving the Proposal because NYSE Arca did not provide a cost-based justification for the Proposal's market data fees or other evidence to demonstrate that its proposed fees meet the applicable Exchange Act standards.<sup>38</sup> They asserted that the Exchange Act requires that an exchange's market data fees be "fair and reasonable," "not unreasonably discriminatory," and "an equitable allocation of costs,"<sup>39</sup> and that the Commission apply a cost-based standard in evaluating market data fees.<sup>40</sup> One commenter argued that market data fees "must be reasonably related to market data costs" and that the Commission should require exchanges to identify and substantiate their market data costs in their market data fee proposals.<sup>41</sup>

Several commenters argued that the Commission itself has recognized the need for a cost-based justification of market data fees.<sup>42</sup> They believed that the Commission's position in its 1999 market information concept release<sup>43</sup> "underscores the fundamental role that a rigorous cost-based analysis must play in reviewing market data fee filings."<sup>44</sup> In particular, these commenters cited the following statement from the release:

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<sup>38</sup> Bloomberg Letter at 3; Petition at 5; SIFMA I at 6; SIFMA III at 20.

<sup>39</sup> Schwab Letter at 4; SIFMA III at 19; SIFMA IV at 7.

<sup>40</sup> Bloomberg Letter at 2; NetCoalition II at 3; NetCoalition III at 11; Schwab Letter at 3; SIFMA I at 6; SIFMA III at 16; SIFMA IV at 10.

<sup>41</sup> SIFMA III at 1, 20.

<sup>42</sup> Bloomberg Letter at 2; NetCoalition II at 3; NetCoalition III at 11; Schwab Letter at 3; SIFMA III at 20; SIFMA IV at 10.

<sup>43</sup> Securities Exchange Act Release No. 42208 (December 9, 1999), 64 FR 70613 (December 17, 1999) ("Market Information Concept Release").

<sup>44</sup> NetCoalition II at 3. See also Bloomberg Letter at 2; SIFMA I at 6.

[T]he fees charged by a monopolistic provider of a service (such as the exclusive processors of market information) need to be tied to some type of cost-based standard in order to preclude excessive profits if fees are too high or underfunding or subsidization if fees are too low. The Commission therefore believes that the total amount of market information revenues should remain reasonably related to the cost of market information.<sup>45</sup>

Similarly, a commenter stated that the Commission acknowledged in its Concept Release Concerning Self-Regulation that the amount of market data revenues should be reasonably related to the cost of market information.<sup>46</sup> Another commenter, citing proceedings involving Instinet’s challenge to proposed NASD market data fees,<sup>47</sup> argued that the Commission in that case “emphatically embraced the cost-based approach to setting market data fees . . .,” and insisted on a strict cost-based justification for the market data fees at issue.<sup>48</sup>

The commenters believed, further, that the costs attributable to market data should be limited to the cost of collecting, consolidating, and distributing the data,<sup>49</sup> and that market data fees should not be used to fund regulatory activities or to cross-subsidize an

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<sup>45</sup> 64 FR at 70627 (cited in Bloomberg Letter at 2; NetCoalition II at 3; NetCoalition III at 11 n. 47; SIFMA III at 1). One commenter maintained that the cost-based analysis requirement is based on Congressional concerns regarding the dangers of exclusive processors, in the context of either consolidated or single-market data. NetCoalition II at 3.

<sup>46</sup> NetCoalition III at 11 n. 47.

<sup>47</sup> Securities Exchange Act Release No. 20874 (April 17, 1984), 49 FR 17640 (April 24, 1984), *aff’d sub nom. NASD, Inc. v. SEC*, 802 F.2d 1415 (D.C. Cir. 1986).

<sup>48</sup> SIFMA IV at 10.

<sup>49</sup> Citigroup Letter at 1; SIFMA III at 21. One commenter believed that the Commission “should create standards that allow producers of market data to recover their costs and make a reasonable profit (e.g., a 10% return), but not an excessive profit.” Schwab Letter at 6.

exchange's competitive operations.<sup>50</sup> One commenter maintained that, in the absence of cost data, the Commission cannot determine whether NYSE Arca uses market data revenues to subsidize competitive activities.<sup>51</sup> In particular, the commenter believed that the Commission must scrutinize the cost justification for NYSE Arca's fees to "be sure that NYSE Arca is not using its market power in the upstream data market as the exclusive processor for this data . . . to price squeeze its competitors in the downstream transaction market and to cross-subsidize its reduction in transaction fees."<sup>52</sup>

One commenter argued that NYSE Arca's proposed fees are not an "equitable allocation" of costs among its users and are unreasonably discriminatory because the fees are based on the number of people who view the data. Thus, a broker-dealer with many customers seeking to view market data pays considerably more for market data than an institution or algorithmic trader that pays only for the data link to its computer systems.<sup>53</sup>

### 3. Exchange Act Rule 19b-4 Process

One commenter argued that the Proposal fails to satisfy the requirements of Exchange Act Rule 19b-4 and Form 19b-4, because, among other things, the Proposal does not: (1) explain why NYSE Arca must charge for data that it previously provided

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<sup>50</sup> SIFMA III at 8; SIFMA IV at 10. The commenter believed that other costs, including member regulation and market surveillance, should be funded by listing, trading, and regulatory fees, rather than market data fees. See SIFMA III at 21. Another commenter maintained that funding regulatory activities through an explicit regulatory fee, rather than through market data revenues, "would be more logical and transparent . . . ." NSX Letter at 2. See also Schwab Letter at 5.

<sup>51</sup> SIFMA IV at 10.

<sup>52</sup> SIFMA IV at 10.

<sup>53</sup> Schwab Letter at 4. The commenter argued that this fee structure "is a subsidization program whereby exchanges rebate revenue to their favored traders based on market data fees imposed on retail investors." Id.

free of charge; (2) address the change in circumstances caused by the NYSE's conversion from a member-owned, not-for-profit entity to a shareholder-owned, for-profit entity; (3) address the effect of the fee on retail investors, whom the commenter believes will be denied access to NYSE Arca's data as a result of the fees; (4) explain how making available a faster single-market data feed at a high price, while most investors must rely on slower consolidated market data products, is consistent with the mandates under the Exchange Act for equal access to and transparency in market data; and (5) include the contract terms governing access to and use of NYSE Arca's data or address the administrative costs and burdens that the contract terms impose.<sup>54</sup> Another commenter, citing the Petition, asserted that the Proposal fails to satisfy the requirements of Form 19b-4 because it provides no disclosure regarding the burdens on competition that could result from its proposed fees or a justification for the proposed fees.<sup>55</sup>

Commenters also raised more general concerns regarding the Exchange Act Rule 19b-4 rule filing process as it applies to proposed rule changes relating to market data. In light of the significant policy issues that market data proposals raise, commenters questioned whether such proposals should be eligible to be effective upon filing pursuant to Exchange Act Rule 19b-4(f)(6).<sup>56</sup> One commenter believed that all market data proposals should be subject to notice and comment, and that the Commission should provide a 30-day comment period for such proposals.<sup>57</sup> In addition, the commenter

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<sup>54</sup> SIFMA III at 11-12.

<sup>55</sup> Bloomberg Letter at 3. See also Petition at 6-7.

<sup>56</sup> Baker Letter at 1-2; SIFMA III at 22; Bloomberg Letter at 6.

<sup>57</sup> SIFMA III at 22.

cautioned that the rule filing process should not become a “rubberstamp” of an exchange’s proposal.<sup>58</sup> One commenter suggested that the Commission narrow its delegation of authority with respect to proposed rule changes to exclude proposals that have generated significant public comment.<sup>59</sup>

#### 4. Importance of Depth-of-Book Data

One commenter maintained that because single-market depth-of-book data products have significant advantages over consolidated top-of-book products in terms of both speed and the depth of interest displayed, many broker-dealers believe that it is prudent to purchase single-market depth-of-book data to satisfy their best execution and Regulation NMS order routing obligations.<sup>60</sup> The commenter noted that NYSE Arca has indicated in its advertising materials that its ArcaBook data feed is approximately 60 times faster than the consolidated data feeds and displays six times the liquidity within five cents of the inside quote.<sup>61</sup> The commenter also maintained that the NYSE has

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<sup>58</sup> SIFMA I at 2 n. 3.

<sup>59</sup> NetCoalition III at 3-4.

<sup>60</sup> SIFMA III at 5-6. The commenter stated that depth-of-book information has become more important because of the reduction in liquidity at the inside quote and the increase in quote volatility since decimalization, and because depth-of-book quotations are likely to become more executable following the implementation of Regulation NMS. SIFMA III at 12-13. Similarly, another commenter maintained that, through Regulation NMS, the Commission “has imposed a system that requires access to depth-of-book information.” Schwab Letter at 5. Likewise, a commenter believed that market participants require depth-of-book information to trade effectively in decimalized markets. SIFMA IV at 8. See also NetCoalition III at 5.

<sup>61</sup> SIFMA III at 14 n. 24.

linked its depth-of-book products to best execution by stating that “NYSE Arca’s market data products are designed to improve trade execution.”<sup>62</sup>

One commenter argued that the central processors that distribute consolidated data have little incentive to invest in modernizing their operations.<sup>63</sup> Another commenter believed that the disparity between faster and more expensive depth-of-book proprietary data feeds and the slower, less costly, and less valuable consolidated data feeds results in a “two-tiered structure with institutions having access to prices not reasonably available to small investors . . .,” circumstances that the commenter believed “recreate the informational advantage that once existed on the physical floors of the open outcry markets.”<sup>64</sup>

Another commenter believed that depth-of-book information should be considered basic information for retail investors as well as professional investors and that one goal of the National Market System should be to assure that “all investors . . . whether professional or non-professional . . . have equal access to the same quality information, at a reasonable price, and at the same time.”<sup>65</sup> Similarly, a commenter believed that retail investors require quotations beyond the national best bid or offer to assess the quality of the executions they receive.<sup>66</sup>

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<sup>62</sup> SIFMA IV at 12.

<sup>63</sup> SIFMA III at 13.

<sup>64</sup> Financial Services Roundtable Letter at 3. One commenter believed that market participants who choose not to purchase depth-of-book data will face the informational disadvantages that Regulation NMS seeks to eliminate. NSX Letter at 2.

<sup>65</sup> SIFMA IV at 13.

<sup>66</sup> NetCoalition III at 5 n. 16.

## 5. Lack of Competition in Market Data Pricing

Commenters argued that there are no effective competitive or market forces that limit what an exchange may charge for its depth-of-book data.<sup>67</sup> Although one commenter acknowledged the argument that competition in the market for liquidity and transactions could serve as a constraint on what exchanges may charge for their data products, the commenter believed that the consolidations of the NYSE with Archipelago and Nasdaq with BRUT and INET have limited this constraint.<sup>68</sup> The commenter also asserted that competition in the market for order execution is not the same as competition in the market for market data, and that an economic analysis must consider the market for market data from the consumer's perspective.<sup>69</sup> Because proprietary market data is a "sole-source product," the commenter believed that no market forces operate on the transaction between an exchange and the consumer of its data.<sup>70</sup> The commenter believed that the unique characteristics of the market for market data—including increased market concentration and market participants' obligation to purchase sole-source proprietary market data to trade effectively—resulted in a "classic economic market failure . . . that requires comprehensive regulatory intervention to ensure 'fair and reasonable' prices."<sup>71</sup> Similarly, another commenter maintained that, with respect to

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<sup>67</sup> NetCoalition III at 9; SIFMA III at 16-17; SIFMA IV at 5.

<sup>68</sup> SIFMA III at 17.

<sup>69</sup> SIFMA IV at 5. See also NetCoalition III at 2.

<sup>70</sup> SIFMA IV at 5.

<sup>71</sup> SIFMA IV at 8. The commenter believed that Congress envisioned the Commission regulating exclusive processors in a manner similar to the way in which public utilities are regulated. SIFMA I at 5.

market data that is exclusive to an exchange, “[t]here is no way for competitive forces to produce market-driven or ‘fair and reasonable’ prices required by the Exchange Act . . . .”<sup>72</sup>

Other commenters believed that an exchange has a monopoly position as the exclusive processor of its proprietary data that “creates a serious potential for abusive pricing practices,”<sup>73</sup> and urged the Commission to consider the lack of competition and the inability to obtain market data from other sources.<sup>74</sup> One commenter asserted that “broker-dealers will . . . be forced to purchase market data at a fixed and . . . arbitrary price” until market data fees are reformed.<sup>75</sup>

In addition, several commenters believed that the transformation of most U.S. securities exchanges from not-for-profit membership organizations to for-profit entities has eliminated an important constraint on market data fees as the for-profit exchanges seek to maximize value for their shareholders.<sup>76</sup> In this regard, one commenter explained that “exchanges are beholden to their shareholders to increase revenue, and market data is

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<sup>72</sup> NetCoalition III at 2.

<sup>73</sup> Schwab Letter at 6. See also Spencer Letter.

<sup>74</sup> Citigroup Letter at 1. Similarly, a commenter believed that “[u]nless checked by effective regulatory oversight . . . exchanges have both the incentives and the power to charge whatever they can for the market data over which they have exclusive control.” SIFMA III at 4. The commenter also asserted that “[t]he lack of both economic market forces and comprehensive oversight of exchanges as the sole-source processors of market data . . . has allowed the exchange to simply ‘name their prices’ . . . .” SIFMA IV at 2.

<sup>75</sup> NSX Letter at 2.

<sup>76</sup> ABA Letter at 2-3; Financial Services Roundtable Letter at 2; Schwab Letter at 5; SIFMA III at 24.

the revenue stream that holds the greatest potential for doing so.”<sup>77</sup> Other commenters argued that the advent of for-profit exchanges has eliminated the governance checks on market data pricing that operated when exchange members – broker-dealers who were obligated to purchase consolidated market data – sat on the boards of the non-profit, member-owned exchanges.<sup>78</sup>

#### 6. Increase in Market Data Revenues

With respect to the increase in the NYSE Group’s market data revenues following its merger with Archipelago, one commenter stated that “NYSE Group’s reported market data segment revenues totaled \$57.5 million in the third quarter of 2006: up 33.7% from the same three month period in 2005.”<sup>79</sup> According to the commenter, the NYSE Group attributed its revenue growth in market data to the contribution of NYSE Arca’s operations following the completion of the merger between the NYSE and Archipelago on March 7, 2006.<sup>80</sup> The commenter maintained that Nasdaq has experienced similar growth in its market data revenues and that the exchanges “propose to charge fees for a series of market data products that, when multiplied by the number of potential subscribers, are resulting in increased costs of doing business totaling tens of millions of dollars per year for some individual firms and hundreds of millions of dollars per year across the financial markets.”<sup>81</sup> The commenter identified the current fees for proprietary

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<sup>77</sup> Schwab Letter at 5. See also NetCoalition II at 4; SIFMA III at 24; SIFMA IV at 2.

<sup>78</sup> Financial Services Roundtable Letter at 2; NetCoalition II at 4; SIFMA III at 15.

<sup>79</sup> SIFMA III at 18-19 (citations omitted).

<sup>80</sup> SIFMA III at 18 (citation omitted).

<sup>81</sup> SIFMA III at 4.

and consolidated market data products and claimed that investors ultimately pay these fees.<sup>82</sup>

## 7. Recommended Solutions

To address the issues raised by market data fees, the commenters suggested several potential solutions. One commenter recommended that the Commission adopt a specialized market data form for market data rule proposals that would require a detailed justification of proposed fee changes by the SROs.<sup>83</sup> The commenter believed that the form should, among other things, require an exchange to substantiate its historical costs of producing market data, its current market data revenues, how and why its costs have changed and the existing revenue is no longer appropriate, how the fee would impact market participants, how the revenues would be used, and the contract terms, system specifications, and audit requirements that would be associated with the proposed fee change.<sup>84</sup>

The commenter also believed that the contract terms governing the use of market data should be included in market data rule filings and subject to notice and comment.<sup>85</sup> The commenter maintained that the contract terms are effectively non-negotiable and that the compliance costs associated with them may affect the efficiency and transparency of the markets. Another commenter asserted that exchange market data contracts limit the use and dissemination of the data provided under the contracts, potentially impairing the

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<sup>82</sup> SIFMA IV at 14 and Appendix A.

<sup>83</sup> SIFMA III at 21-22.

<sup>84</sup> SIFMA III at 21-22.

<sup>85</sup> SIFMA III at 23.

flow and further analysis of the information, and impose administrative and technological burdens on firms.<sup>86</sup>

The commenters also suggested structural changes to address market data issues, including requiring exchanges to place their market data operations in a separate subsidiary and to make their raw market data available to third parties on the same terms as they make the data available to their market data subsidiary and to the independent central processor.<sup>87</sup> The commenters believed that this could encourage competition in providing market data products and services<sup>88</sup> and create a mechanism for free market pricing.<sup>89</sup>

Finally, the commenters suggested that the Commission increase the quality and depth of the required consolidated quotation information to allow retail investors to determine the prices at which their orders will be executed and to observe pricing movements in the market.<sup>90</sup> One commenter recommended that the Commission require exchanges to consolidate and distribute their top and depth-of-book data, and that the associated costs be paid by investors who act on the information.<sup>91</sup>

#### B. Commenters Supporting the Action by Delegated Authority

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<sup>86</sup> Citigroup Letter at 2.

<sup>87</sup> Bloomberg Letter at 4; Kanjorski Letter at 1; NetCoalition I at 2; Schwab Letter at 7; SIFMA III at 24-25.

<sup>88</sup> SIFMA III at 25.

<sup>89</sup> Schwab Letter at 7.

<sup>90</sup> Schwab Letter 5; SIFMA III at 25-26.

<sup>91</sup> NSX Letter at 2. Other commenters endorse this recommendation. NetCoalition III at 7, 13; SIFMA IV at 15.

Several commenters who supported the approval of the Proposal by delegated authority argued that the staff applied the correct legal standard<sup>92</sup> and that the broader policy questions raised by the Petition should be addressed in the context of Commission rulemaking, rather than in connection with a specific exchange market data proposal.<sup>93</sup>

Several commenters rejected the assertion that a cost-based standard is the correct standard for the Commission to apply in reviewing market data fee proposals.<sup>94</sup> In this regard, the commenters distinguished between the standards applicable to “core” market data (i.e., consolidated quotation and last sale data for U.S.-listed equities) and the standards applicable to proprietary market data products.<sup>95</sup> One commenter maintained that the Commission, in adopting Regulation NMS, authorized exchanges to distribute market data outside of the national market system plans, subject to the general fairness and nondiscrimination standards of Rule 603 of Regulation NMS, but “otherwise [left] to free market forces the determination of what information would be provided and at what price.”<sup>96</sup> Another commenter, noting that the Commission specifically considered and refrained from adopting the cost-based standard that NetCoalition proposes, argued that NetCoalition’s approach “would replace Regulation NMS . . . with a complex and

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<sup>92</sup> Amex Letter at 2; ISE Letter at 3; PHLX Letter at 2-3.

<sup>93</sup> Amex Letter at 4; PHLX Letter at 8.

<sup>94</sup> Exchange Market Data Coalition Letter at 2; ISE Letter at 3; PHLX Letter at 4.

<sup>95</sup> Amex Letter at 1; ISE Letter at 2-3; PHLX Letter at 4-5.

<sup>96</sup> Amex Letter at 2. The commenter noted that exchange fees also are subject to the requirements of Section 6(b)(4) of the Exchange Act. See also PHLX Letter at 7.

intrusive rate-making approach that is inconsistent with the goals of the . . . [Exchange Act] and would be more costly than beneficial.”<sup>97</sup>

One commenter disagreed with the assertion that an exchange possesses monopoly pricing power with respect to its proprietary data products. It contended that assertions concerning an exchange’s monopoly pricing power “ignore . . . market reality and market discipline. If any exchange attempts to charge excessive fees, there simply will not be buyers for such products.”<sup>98</sup> Nasdaq noted that, as of April 30, 2007, over 420,000 professional users purchased core data, but less than 19,000 professional users purchased TotalView, Nasdaq’s proprietary depth-of-book order product.<sup>99</sup> It concluded that “[b]roker-dealers may claim they are required to purchase TotalView, but their actions indicate otherwise.”<sup>100</sup>

The commenters emphasized that the exchanges face significant competition in their efforts to attract order flow:

Exchanges compete not only with one another, but also with broker-dealers that match customer orders within their own systems and also with a proliferation of alternative trading systems (“ATs”) and electronic communications networks (“ECNs”) that the Commission has also

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<sup>97</sup> Exchange Market Data Coalition Letter at 2. One commenter asserted that “[a]pplying NetCoalition’s proposed strict cost-based fee analysis to every exchange market data rule filing is unworkable and . . . is not required under the Act.” ISE Letter at 3. Similarly, noting that SROs must ensure that market data is not corrupted by fraud or manipulation, another commenter believed that it would be virtually impossible to identify the costs specifically associated with the production of market data versus other SRO functions. PHLX Letter at 6.

<sup>98</sup> ISE Letter at 3. Similarly, another commenter noted that the users of data will purchase data “if it provides them value and is priced reasonably.” Amex Letter at 1.

<sup>99</sup> Nasdaq Letter at 6.

<sup>100</sup> Nasdaq Letter at 6.

nurtured and authorized to execute trades in any listed issue. As a result, market share of trading fluctuates among execution facilities based on their ability to service the end customer. The execution business is highly competitive and exhibits none of the characteristics of a monopoly as suggested in the NetCoalition Petition.<sup>101</sup>

Similarly, another commenter stated that “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.”<sup>102</sup> It also noted that market data “is the totality of the information assets that each Exchange creates by attracting order flow” and emphasized that “[i]t is in each Exchange’s best interest to provide proprietary information to investors to further their business objectives, and each Exchange chooses how best to do that.”<sup>103</sup> Commenters stated that, in the absence of a regulatory requirement to provide non-core market data, it is necessary to provide a financial or other business incentive for exchanges to make such data available.<sup>104</sup>

#### IV. NYSE Arca Responses to Commenters

##### A. Response to Commenters on Proposal

In its responses to commenters on the Proposal, the Exchange argued that the Proposal establishes “a framework for distributing data in which all vendors and end users are permitted to receive and use the Exchange’s market data on equal, non-

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<sup>101</sup> Exchange Market Data Coalition Letter at 4.

<sup>102</sup> Nasdaq Letter at 7.

<sup>103</sup> Id. at 3, 4.

<sup>104</sup> Amex Letter at 1; ISE Letter at 2; PHLX Letter at 7.

discriminatory terms.”<sup>105</sup> The Exchange asserted that the proposed professional and non-professional device fees for the NYSE Arca Data were fair and reasonable because they “are far lower than those already established – and approved by the Commission – for similar products offered by other U.S. equity exchanges and stock markets.”<sup>106</sup> In particular, the Exchange noted that the proposed \$15 per month device fee for each of the ArcaBook data products is less than both the \$60 per month and \$70 per month device fees that the NYSE and Nasdaq, respectively, charge for comparable market data products.<sup>107</sup>

With respect to its proposed fees, the Exchange noted, further, that it had invested significantly in its ArcaBook products, including making technological enhancements that allowed the Exchange to expand capacity and improve processing efficiency as message traffic increased, thereby reducing the latency associated with the distribution of ArcaBook data.<sup>108</sup> The Exchange stated that “[i]n determining to invest the resources necessary to enhance ArcaBook technology, the Exchange contemplated that it would seek to charge for the receipt and use of ArcaBook data.”<sup>109</sup> The Exchange also emphasized the reasonableness of its proposed fee relative to other comparable market data products, asserting, for example, that “NYSE Arca is at the inside price virtually as often as Nasdaq, yet the proposed fee for ArcaBook is merely one-fifth of the TotalView

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<sup>105</sup> NYSE Arca Response I at 2.

<sup>106</sup> Id.

<sup>107</sup> NYSE Arca Response I at 2-3.

<sup>108</sup> NYSE Arca Response II at 2.

<sup>109</sup> Id. at 3.

fee.”<sup>110</sup> Moreover, it stated that its decision to commence charging for ArcaBook data was based on its view that “market data charges are a particularly equitable means for funding a market’s investment in technology and its operations. In contrast with transaction, membership, listing, regulatory and other SRO charges, market data charges cause all consumers of a securities market’s services, including investors and market data vendors, to contribute.”<sup>111</sup>

The Exchange stated that it proposes to use the CTA and CQ Plan contracts to govern the distribution of NYSE Arca Data and that it was not amending the terms of these existing contracts or imposing restrictions on the use or display of its data beyond those that are currently set forth in the contracts.<sup>112</sup> Further, the Exchange specifically noted that these contracts do not prohibit a broker-dealer from making its own data available outside of the CTA and CQ Plans.<sup>113</sup> Finally, the Exchange argued that by using this current structure, it believes that the administrative burdens on firms and vendors should be low.<sup>114</sup>

B. Response to Commenters on Petition

In its response to commenters on the Petition, the Exchange argued that recent market-based solutions have mooted the concerns expressed in the Petition regarding the

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<sup>110</sup> Id.

<sup>111</sup> Id. at 4.

<sup>112</sup> NYSE Arca Response I at 3.

<sup>113</sup> Id. at n. 12 and accompanying text.

<sup>114</sup> Id. at 5.

affordability of market data for internet portals.<sup>115</sup> In particular, the Exchange noted that the NYSE recently submitted a proposed rule change for a market data product that would provide unlimited real-time last sale prices to vendors for a fixed monthly fee (“NYSE Internet Proposal”).<sup>116</sup> The Exchange stated that this NYSE Internet Proposal “would meet the needs of internet portals and add to the number of choices that are available to intermediaries and investors for their receipt of real-time prices.”<sup>117</sup> The Exchange asserted that the NYSE Internet Proposal “provides a significant benefit to investors” since “it adds to the data-access alternatives available to them and improves the quality, timeliness and affordability of data they can receive over the internet.”<sup>118</sup>

The Exchange also reiterated the argument that the proposed market data fees meet the statutory standards for such fees under the Exchange Act.<sup>119</sup> The Exchange argued that the fees represent an equitable allocation of fees and charges since they “represent the first time that [the Exchange] has established a fee that a person or entity other than an [Exchange] member or listed company must pay” and are being imposed “on those who use the facilities of [the Exchange] but do not otherwise contribute to [the Exchange’s] operating costs.”<sup>120</sup>

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<sup>115</sup> NYSE Arca Response III at 5-6.

<sup>116</sup> See id. at 5.

<sup>117</sup> NYSE Arca Response III at 5.

<sup>118</sup> Id.

<sup>119</sup> Id. at 11.

<sup>120</sup> Id.

The Exchange argued that the proposed market data fees are not “unreasonably discriminatory” since “all professional subscribers are subject to the same fees and all nonprofessional subscribers are subject to the same fees.”<sup>121</sup> The Exchange noted that the only discrimination that occurs is the “reasonable” distinction that would require professional subscribers to pay higher fees than nonprofessional subscribers.<sup>122</sup>

The Exchange asserted that the fees are fair and reasonable because: (1) “they compare favorably to the level of fees that other U.S. markets and the CTA and Nasdaq/UTP Plans impose for comparable products”; (2) “the quantity and quality of data NYSE Arca includes in Arca Book compares favorably to the data that other markets include in their market data products”; and (3) “the fees will enable NYSE Arca to recover the resources that NYSE Arca devoted to the technology necessary to produce Arca Book data.”<sup>123</sup>

The Exchange also rejected the Petitioner’s assertion that the Exchange acted “arbitrarily or capriciously” by using a comparison of similar market data fees in setting the level of the proposed fees.<sup>124</sup> The Exchange noted that in addition to studying “what other markets charge for comparable products,” the Exchange also considered: (1) the needs of those entities that would likely purchase the Arca Book data; (2) the “contribution that revenues from Arca Book Fees would make toward replacing the revenues that NYSE Arca stands to lose as a result of the removal of the NQDS service

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<sup>121</sup> Id.

<sup>122</sup> Id.

<sup>123</sup> Id. at 11-12.

<sup>124</sup> Id. at 12.

from the Nasdaq/UTP Plan”); (3) “the contribution that revenues accruing from Arca Book Fees would make toward NYSE Arca’s market data business”); (4) the contribution that revenues accruing from Arca Book Fees would make toward meeting the overall costs of NYSE Arca’s operations”); (5) “projected losses to NYSE Arca’s business model and order flow that might result from marketplace resistance to Arca Book Fees”); and (6) “the fact that Arca Book is primarily a product for market professionals, who have access to other sources of market data and who will purchase Arca Book only if they determine that the perceived benefits outweigh the cost.”<sup>125</sup>

The Exchange also rejected the Petitioner’s assertion that all proposed market data fees must be subjected to a rigorous cost-based analysis.<sup>126</sup> The Exchange noted that the Petitioner “is able to cite only one instance” that supports such an assertion.<sup>127</sup> The Exchange also noted that Petitioner “fails to mention that a significant portion of the industry” expressed opposition to a cost-based approach to analyzing market data fees in response to various Commission releases and other initiatives.<sup>128</sup> The Exchange argued that a cost-based analysis of market data fees is impractical because “[i]t would

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<sup>125</sup> Id. at 12-13.

<sup>126</sup> Id. at 13.

<sup>127</sup> Id.

<sup>128</sup> Id. at 14-15. The Exchange referenced opposition in the industry to a cost-based analysis of market data fees expressed in connection with the Market Information Concept Release, the Concept Release Concerning Self-Regulation, the Regulation NMS initiative, and the Commission’s Advisory Committee on Market Information.

inappropriately burden both the government and the industry, stifle competition and innovation, and in the end, raise costs and, potentially, fees.”<sup>129</sup>

The Exchange also disputed Petitioner’s argument that the Exchange’s proposed market data fees amount to an exercise of monopoly pricing power.<sup>130</sup> It noted that “[m]arkets compete with one another by seeking to maximize the amount of order flow that they attract. The markets base the competition for order flow on such things as technology, customer service, transaction costs, ease of access, liquidity and transparency.”<sup>131</sup> The Exchange noted that “[t]he Commission has prescribed top-of-the-book consolidated market data as the data required for best execution purposes” and that there is “no regulatory requirement” for brokers to receive depth-of-book or other proprietary market data products.<sup>132</sup> Accordingly, the Exchange asserted that no monopoly power exists, and that the marketplace determines the fees charged by the Exchange for depth-of-book market data.<sup>133</sup> Further, the Exchange claimed that if the market data fees were excessive, market participants “would forego Arca Book data and would choose to receive the depth-of-book service of other markets.”<sup>134</sup> It noted that:

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<sup>129</sup> Id. at 15 (citing NYSE Response to Market Information Concept Release (April 10, 2000) (emphasis in original)).

<sup>130</sup> Id. at 16.

<sup>131</sup> Id. at 16. See also id. at 18 (“If too many market professionals reject Arca Book as too expensive, NYSE Arca would have to reassess the Arca Book Fees because Arca Book data provides transparency to NYSE Arca’s market, transparency that plays an important role in the competition for order flow.”)

<sup>132</sup> Id. at 18.

<sup>133</sup> Id.

<sup>134</sup> Id.

As a result of all of the choices and discretion that are available to brokers, the displayed depth-of-book data of one trading center does not provide a complete picture of the full market for the security. It displays only a portion of all interest in the security. A brokerage firm has potentially dozens of different information sources to choose from in determining if, where, and how to represent an order for execution.<sup>135</sup>

The Exchange also addressed other concerns raised by commenters in connection with the Petition. First, the Exchange indicated that it has no intention of retroactively imposing the proposed market data fees.<sup>136</sup> The Exchange also disputed a commenter's statement which indicated that "market data revenues of the NYSE Group (the parent company of Exchange and NYSE) for the third quarter of 2006 rose 33.7% from the year-earlier."<sup>137</sup> According to the Exchange, this statistic does not demonstrate "a significant increase in market data revenues during 2006" since the 2005 market data revenue from the NYSE Group used to generate this statistic did not include the Exchange's market data revenue because the Exchange was not part of the NYSE Group in 2005.<sup>138</sup> The Exchange notes that the combined market data revenues for the Exchange and NYSE have actually declined slightly.<sup>139</sup> Lastly, the Exchange rejects the commenters' contention that a significant speed variance exists between proprietary market data products and the consolidated data feed that markets make available under the CQ and Nasdaq/UTP Plans. The Exchange notes that the "variations in speed are measured in

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<sup>135</sup> Id. at 17.

<sup>136</sup> Id. at 20.

<sup>137</sup> Id.

<sup>138</sup> Id.

<sup>139</sup> Id. at n. 50 and accompanying text. According to the Exchange, pro forma results indicate that the Exchange and NYSE received a combined \$242 million in 2005, while they only received a combined \$235 million in 2006.

milliseconds” and that “[f]rom a display perspective the difference is imperceptible.”<sup>140</sup>

Furthermore, the Exchange notes that the CQ Plan participants have undertaken a technology upgrade that would reduce the latency of the consolidated feed from “several hundred milliseconds to approximately 30 milliseconds.”<sup>141</sup>

#### V. Comments on the Draft Order

The Commission received 16 comments from 12 commenters regarding the Draft Order,<sup>142</sup> three of which also submitted economic studies analyzing the Draft Order’s rationale for approving the Proposal.<sup>143</sup>

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<sup>140</sup> Id. at 21.

<sup>141</sup> Id.

<sup>142</sup> Letters from Ira D. Hammerman, Senior Managing Director and General Counsel, SIFMA, dated November 17, 2008 (“SIFMA X”) (attaching supplemental report by Securities Litigation & Consulting Group, Inc.); Markham C. Erickson, Executive Director and General Counsel, NetCoalition, dated October 14, 2008 (“NetCoalition VII”) (attaching report by Dr. David S. Evans dated October 10, 2008); Bart M. Green, Chairman, and John Giese, President and CEO, Security Traders Association (“STA”), dated September 11, 2008 (“STA Letter”); Jeffrey S. Davis, Vice President and Deputy General Counsel, Nasdaq OMX Group, Inc., dated September 10, 2008 (“Nasdaq III”) and August 1, 2008 (“Nasdaq II”); Joseph Rizzello, Chief Executive Officer, NSX, dated September 9, 2008 (“NSX II”); Richard Bartlett, Managing Director, Citigroup Global Markets Inc., dated July 11, 2008 (“Citigroup II”); David T. Hirschmann, President and Chief Executive Officer, Center for Capital Markets Competitiveness of the United States Chamber of Commerce, dated July 10, 2008 (“Chamber of Commerce II”); Michael J. Simon, Secretary, ISE, dated July 10, 2008 (“ISE II”); Markham C. Erickson, Executive Director and General Counsel, NetCoalition, dated July 10, 2008 (attaching report by Dr. David S. Evans) (“NetCoalition VI”); Markham C. Erickson, Executive Director and General Counsel, NetCoalition, dated July 10, 2008 (“NetCoalition V”); Ira D. Hammerman, Senior Managing Director and General Counsel, SIFMA, dated July 10, 2008 (attaching report by the Securities Litigation & Consulting Group, Inc.) (“SIFMA IX”); Mary Yeager, Corporate Secretary, NYSE Arca, to Florence Harmon, Acting Secretary, Commission, dated July 8, 2008 (“NYSE Arca IV”); and Christopher Perry, Thomson Reuters Markets, dated July 8, 2008 (“Thomson Reuters Letter”); and web comments from William C. Martin, Principal, Indie Research, LLC and Founder,

NetCoalition and SIFMA did not believe that the Draft Order’s analytical framework would meet the Commission’s responsibilities under the Exchange Act for reviewing market data fees.<sup>144</sup> In this regard, SIFMA stated that “there is . . . no basis for the presumption in the [Draft] Order that [the] statutory requirements are satisfied if the Commission is able to conclude that ‘significant competitive forces’ exist in the context of an exchange fee proposal.”<sup>145</sup> NetCoalition asserted that Congress urged the Commission not to rely on competitive forces in the context of exclusive processors of data.<sup>146</sup>

Some commenters questioned the extent of exchange competition for order flow and whether such competition results in fair and reasonable market data fees.<sup>147</sup> The SLCG Study asserted that competition for order flow does not assure competitive pricing

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RagingBull.com, dated July 9, 2008 (“Indie Research Comment”); and Kreg Rutherford (“Rutherford Comment”).

<sup>143</sup> David S. Evans, “Response to Ordover and Bamberger’s Statement Regarding the SEC’s Proposed Order Concerning the Pricing of Depth-of-Book Market Data” (“Evans II”), which was submitted with NetCoalition VII; David S. Evans, “An Economic Assessment of Whether ‘Significant Competitive Forces’ Constrain an Exchange’s Pricing of Its Depth-of-Book Market Data” (“Evans Report”), which was submitted with NetCoalition VI; Securities Litigation and Consulting Group, Inc. (“SLCG”), “An Economic Study of Securities Market Data Pricing by the Exchanges” (“SLCG Study”), which was submitted with SIFMA IX and a supplemental analysis to the SLCG Study (“SLCG II”), which was submitted with SIFMA X; and Statement of Janusz Ordover and Gustavo Bamberger, dated August 1, 2008 (“Ordover/Bamberger Statement” or “Statement”), which was submitted with Nasdaq II.

<sup>144</sup> NetCoalition V at 7-9; SIFMA IX at 9-11.

<sup>145</sup> SIFMA IX at 10.

<sup>146</sup> NetCoalition V at 9-10.

<sup>147</sup> Citigroup II at 2; Indie Research Comment; NetCoalition VI at 1; NSX II at 5; SIFMA IX at 3; STA Letter at 3.

for depth-of-book data and that reliance on competitive forces was inappropriate because the NYSE and Nasdaq exert monopoly pricing power with respect to their depth-of-book data.<sup>148</sup> The Evans Report maintained that order flow competition is reflected in transaction fees and liquidity rebates, which are structured to attract order flow, but not in depth-of-book data fees, which do not vary according to the data purchaser's trading volume.<sup>149</sup> NetCoalition and SIFMA also questioned whether the Draft Order's conclusion that depth-of-book data is not necessary to meet a broker-dealer's duty of best execution would be reached in other legal contexts.<sup>150</sup>

Several commenters believed that the NYSE and NYSE Arca must be considered to be a single enterprise for purposes of analyzing market power with respect to depth-of-book data, and that the Draft Order erred in treating them as separate entities.<sup>151</sup> In this regard, the Evans Report found that, because the NYSE and NYSE Arca are controlled by a single corporate entity that will coordinate the pricing of the depth-of-book products of its subsidiaries to maximize its own profits, the NYSE's depth-of-book data cannot act as a competitive constraint on the pricing of NYSE Arca's depth-of-book data.<sup>152</sup>

Commenters opposing the Draft Order also believed that the Commission must obtain and analyze data regarding NYSE Arca's costs of collecting and disseminating depth-of-book information to determine whether its proposed fees meet the Exchange

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<sup>148</sup> SLCG Study at 2 and 34.

<sup>149</sup> Evans Report at 13-16.

<sup>150</sup> NetCoalition V at 7; SIFMA IX at 20.

<sup>151</sup> SIFMA IX at 3; Evans Report at 5-6; SLCG Study at 12.

<sup>152</sup> Evans Report at 5-6.

Act's requirements.<sup>153</sup> One commenter stated that, in the absence of cost data, the Commission lacks an effective basis for evaluating whether proposed market data fees are fair or reasonable.<sup>154</sup> In addition, these commenters suggested that because the Commission concluded that a cost-based analysis was required in the context of a fee dispute between Nasdaq and the CTA, the Commission should require the same cost-based analysis for exchanges' market data fees.<sup>155</sup> Another commenter believed that the exchanges' use of market data fees to fund rebates to order entry firms suggested that market data pricing is "neither competitive nor efficient."<sup>156</sup>

NetCoalition and SIFMA asserted that the Draft Order would in effect be an amendment of Rule 19b-4 and thus would constitute agency rulemaking that must be published for notice and comment under the Administrative Procedures Act.<sup>157</sup> Another commenter believed that greater transparency prior to the publication of the Draft Order would have allowed the Commission to gather additional data.<sup>158</sup>

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<sup>153</sup> NetCoalition V at 15-18; SIFMA IX at 4.

<sup>154</sup> SIFMA IX at 4. Similarly, the SLCG Study maintained that it is not possible to assess the extent of NYSE Arca's market power in establishing fees for Arca Book data without information concerning the costs of collecting and distributing the data. Accordingly, the SLCG Study asserted that the Commission could not reasonably conclude that the NYSE was subject to competitive forces in establishing the proposed Arca Book data fees. SLCG Study at 31-32.

<sup>155</sup> NetCoalition V at 15-18; SIFMA IX at 11-13.

<sup>156</sup> STA Letter at 3.

<sup>157</sup> NetCoalition V at 18; SIFMA IX at 16.

<sup>158</sup> Chamber of Commerce II at 2.

Five commenters, including NYSE Arca, supported issuance of the Draft Order.<sup>159</sup> They generally agreed that significant competitive forces operate in the distribution of non-core data and will constrain the exchanges in setting the terms for such data. For example, ISE agreed with the Draft Order’s analysis of the relationship between non-core data and attracting order flow, noting that it views its proprietary depth-of-book options data service as an important means to advertise the prices available on the ISE and to attract orders to ISE.<sup>160</sup> It currently offers the service free of charge, but only 15% of its members have chosen to subscribe to the service.<sup>161</sup>

Similarly, Thomson Reuters believed that the Commission’s Draft Order correctly analyzed the competitive forces applicable to the establishment of fees for depth-of-book data.<sup>162</sup> In particular, the commenter agreed that, in light of the competitive market for order flow and trade execution, an exchange would have strong competitive reasons to price its depth-of-book data so that the data would be distributed widely to those most likely to use it to trade.<sup>163</sup> The commenter also believed that “the application of market forces to the consolidation and distribution of market data is generally preferable to increased government supervision of the process of setting fees for and licensing subscribers to market data.”<sup>164</sup>

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<sup>159</sup> ISE II, Nasdaq II, NYSE Arca IV, Rutherford Comment, and Thomson Reuters Letter.

<sup>160</sup> ISE II at 2.

<sup>161</sup> Id.

<sup>162</sup> Thomson Reuters Letter at 3.

<sup>163</sup> Id.

<sup>164</sup> Id. at 2.

The Ordovery/Bamberger Statement noted that unnecessary regulation of a market characterized by effective competition can distort the operation of the market and produce “unforeseen and unintended consequences,” and that “cost-based regulation can create significant inefficiencies and distortions.”<sup>165</sup> It identified market data and trade execution services as an example of “joint products” with “joint costs” that determine a trading platform’s total return.<sup>166</sup> The Statement noted that competition among trading platforms could be expected to limit the return each platform earned from the sale of joint products, although different platforms could select different pricing strategies and means of recovering costs.<sup>167</sup>

Another commenter believed that NYSE Arca’s proprietary data would benefit retail investors and that the Exchange’s proposed fees are fair compensation for its data.<sup>168</sup> Noting that U.S. exchanges face increasing competition from foreign markets, dark pools, and electronic communications networks, the commenter stated that it is important for U.S. exchanges to have the ability to offer real-time market data.<sup>169</sup> Finally, NYSE Arca believed that the Commission’s standard would spur innovation and

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<sup>165</sup> Ordovery/Bamberger Statement at 2, 3 n. 4.

<sup>166</sup> Id. at 3-4.

<sup>167</sup> Id. at 4. See also id. at 3 n. 4 (“It is widely accepted that there is no meaningful way to allocate ‘common costs’ across different joint products. For this reason, ‘cost-based’ regulation of the price of market data would require inherently arbitrary cost allocations.”).

<sup>168</sup> Rutherford Comment.

<sup>169</sup> Id.

allow markets to introduce new market data products more quickly, thereby enhancing the competitiveness of the U.S. securities markets.<sup>170</sup>

## VI. Discussion

The Commission finds that the Proposal is consistent with the requirements of the Exchange Act and the rules and regulations thereunder applicable to a national securities exchange. In particular, it is consistent with Section 6(b)(4) of the Exchange Act,<sup>171</sup> which requires that the rules of a national securities exchange provide for the equitable allocation of reasonable dues, fees, and other charges among its members and issuers and other parties using its facilities, and Section 6(b)(5) of the Exchange Act,<sup>172</sup> which requires, among other things, that the rules of a national securities exchange be designed to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system and, in general, to protect investors and the public interest, and not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

The Commission also finds that the Proposal is consistent with the provisions of Section 6(b)(8) of the Exchange Act,<sup>173</sup> which requires that the rules of an exchange not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Exchange Act. Finally, the Commission finds that the Proposal is

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<sup>170</sup> NYSE Arca IV at 2.

<sup>171</sup> 15 U.S.C. 78f(b)(4).

<sup>172</sup> 15 U.S.C. 78f(b)(5).

<sup>173</sup> 15 U.S.C. 78f(b)(8).

consistent with Rule 603(a) of Regulation NMS,<sup>174</sup> adopted under Section 11A(c)(1) of the Exchange Act, which requires an exclusive processor that distributes information with respect to quotations for or transactions in an NMS stock to do so on terms that are fair and reasonable and that are not unreasonably discriminatory.<sup>175</sup>

A. Commission Review of Proposals for Distributing Non-Core Data

The standards in Section 6 of the Exchange Act and Rule 603 of Regulation NMS do not differentiate between types of data and therefore apply to exchange proposals to distribute both core data and non-core data. Core data is the best-priced quotations and comprehensive last sale reports of all markets that the Commission, pursuant to Rule 603(b), requires a central processor to consolidate and distribute to the public pursuant to joint-SRO plans.<sup>176</sup> In contrast, individual exchanges and other market participants distribute non-core data voluntarily. As discussed further below, the mandatory nature of the core data disclosure regime leaves little room for competitive forces to determine products and fees. Non-core data products and their fees are, by contrast, much more sensitive to competitive forces. For example, the Commission does not believe that

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<sup>174</sup> 17 CFR 242.603(a).

<sup>175</sup> NYSE Arca is an exclusive processor of the NYSE Arca Data under Section 3(a)(22)(B) of the Exchange Act, 15 U.S.C. 78c(a)(22)(B), which defines an exclusive processor as, among other things, an exchange that distributes information with respect to quotations or transactions on an exclusive basis on its own behalf.

<sup>176</sup> See Rule 603(b) of Regulation NMS (“Every national securities exchange on which an NMS stock is traded and national securities association shall act jointly pursuant to one or more effective national market system plans to disseminate consolidated information, including a national best bid and national best offer, on quotations for and transactions in NMS stocks. Such plan or plans shall provide for the dissemination of all consolidated information for an individual NMS stock through a single plan processor.”)

broker-dealers are required to purchase depth-of-book order data, including the NYSE Arca data, to meet their duty of best execution.<sup>177</sup> The Commission therefore is able to use competitive forces in its determination of whether an exchange's proposal to distribute non-core data meets the standards of Section 6 and Rule 603.

The requirements for distributing core data to the public were first established in the 1970s as part of the creation of the national market system for equity securities.<sup>178</sup> Although Congress intended to rely on competitive forces to the greatest extent possible to shape the national market system, it also granted the Commission full rulemaking authority in the Exchange Act to achieve the goal of providing investors with a central source of consolidated market information.<sup>179</sup>

Pursuant to this Exchange Act authority, the Commission has required the SROs to participate in three joint-industry plans ("Plans") pursuant to which core data is distributed to the public.<sup>180</sup> The Plans establish three separate networks to disseminate core data for NMS stocks: (1) Network A for securities primarily listed on the NYSE; (2) Network C for securities primarily listed on Nasdaq; and (3) Network B for securities

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<sup>177</sup> See notes 259-266 below and accompanying text.

<sup>178</sup> These requirements are discussed in detail in section III of the Concept Release on Market Information, 64 FR at 70618-70623.

<sup>179</sup> H.R. Rep. No. 94-229, 94th Cong., 1st Sess. 92 (1975) ("Conference Report").

<sup>180</sup> The three joint-industry plans, approved by the Commission, are: (1) the CTA Plan, which is operated by the Consolidated Tape Association and disseminates transaction information for securities primarily listed on an exchange other than Nasdaq; (2) the CQ Plan, which disseminates consolidated quotation information for securities primarily listed on an exchange other than Nasdaq; and (3) the Nasdaq UTP Plan, which disseminates consolidated transaction and quotation information for securities primarily listed on Nasdaq. The CTA Plan and CQ Plan are available at [www.nysedata.com](http://www.nysedata.com). The Nasdaq UTP Plan is available at [www.utpdata.com](http://www.utpdata.com).

primarily listed on exchanges other than the NYSE and Nasdaq. For each security, the data includes: (1) a national best bid and offer (“NBBO”) with prices, sizes, and market center identifications; (2) the best bids and offers from each SRO that include prices, sizes, and market center identifications; and (3) last sale reports from each SRO. The three Networks establish fees for this core data, which must be filed for Commission approval.<sup>181</sup> The Networks collect the applicable fees and, after deduction of Network expenses, distribute the remaining revenues to their individual SRO participants.

The Plans promote the wide availability of core market data.<sup>182</sup> For each of the more than 7000 NMS stocks, quotations and trades are continuously collected from many different trading centers and then disseminated to the public by the central processor for a Network in a consolidated stream of data. As a result, investors have access to a reliable source of information for the best prices in NMS stocks. Commission rules long have required broker-dealers and data vendors, if they provide any data to customers, to also provide core data to investors in certain contexts, such as trading and order-routing.<sup>183</sup> In addition, compliance with the trade-through requirements of Rule 611 of Regulation NMS<sup>184</sup> necessitates obtaining core quotation data because it includes all the quotations that are entitled to protection against trade-throughs.<sup>185</sup>

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<sup>181</sup> Rule 608(b)(1) of Regulation NMS, 17 CFR 242.608(b)(1).

<sup>182</sup> The Plan provisions for distributing quotation and transaction information are discussed in detail in section II of the Concept Release on Market Information, 64 FR at 70615-70618.

<sup>183</sup> Rule 603(c) of Regulation NMS, 17 CFR 242.603(c).

<sup>184</sup> 17 CFR 242.611.

<sup>185</sup> Rule 600(b)(57)(iii) of Regulation NMS, 17 CFR 242.600(b)(57)(iii) (definition of “protected bid” and “protected offer” limited to the best bids and best offers of

For many years, the core data distributed through the Networks overwhelmingly dominated the field of equity market data in the U.S. With the initiation of decimal trading in 2001, however, the value to market participants of non-core data, particularly depth-of-book order data, increased.<sup>186</sup> An exchange's depth-of-book order data includes displayed trading interest at prices inferior to the best-priced quotations that exchanges are required to provide for distribution in the core data feeds. Prior to decimal trading, significant size accumulated at the best-priced quotes because the minimum spread between the national best bid and the national best offer was 1/16th, or 6.25 cents. When the minimum inside spread was reduced to one cent, the size displayed at the best quotes decreased substantially, while the size displayed at the various one-cent price points away from the inside quotes became a more useful tool to assess market depth.

In 2005, the Commission adopted new rules that, among other things, addressed market data.<sup>187</sup> Some commenters on the rule proposals recommended that the Commission eliminate or substantially modify the consolidation model for distributing core data. In addressing these comments, the Commission described both the strengths and weaknesses of the consolidation model. It emphasized the benefits of the model for

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SROs). The Commission decided not to adopt a proposal which would have protected depth-of-book quotations against trade-throughs if the market displaying such quotations voluntarily disseminated them in the consolidated quotation stream. Regulation NMS Release, 70 FR at 37529.

<sup>186</sup> Commenters on the Draft Order cited statements by the Commission's Chairman in 2002 as indicating competitive forces do not apply to non-core market data. SIFMA IX at 4-5; SLCG Study at 28-29; STA Letter at 3-4. Up to that time, however, nearly all market data revenues had been derived from core data. Accordingly, the characteristics of market data revenues in the 70 years prior to 2002 shed no light on the current state of competition for non-core data.

<sup>187</sup> Regulation NMS Release, 70 FR at 37557-37570.

retail investors, but noted the limited opportunity for market forces to determine the level and allocation of fees for core data and the negative effects on innovation by individual markets in the provision of their data.<sup>188</sup>

The Commission ultimately decided that the consolidation model should be retained for core data because of the benefit it afforded to investors, namely “helping them to assess quoted prices at the time they place an order and to evaluate the best execution of their orders against such prices by obtaining data from a single source that is highly reliable and comprehensive.”<sup>189</sup>

With respect to the distribution of non-core data, however, the Commission decided to maintain a deconsolidation model that allows greater flexibility for market forces to determine data products and fees.<sup>190</sup> In particular, the Commission both authorized the independent dissemination of an individual market’s or broker-dealer’s trade data, which previously had been prohibited by Commission rule, and streamlined the requirements for the consolidated display of core market data to customers of broker-dealers and vendors.<sup>191</sup> Most commenters supported this approach.<sup>192</sup> A few

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<sup>188</sup> Id. at 37558.

<sup>189</sup> Id. at 37504.

<sup>190</sup> When describing the deconsolidation model in the context of deciding whether to propose a new model for core data, the Commission noted that “the strength of this model is the maximum flexibility it allows for competitive forces to determine data products, fees, and SRO revenues.” Securities Exchange Act Release No. 49325 (February 26, 2004), 69 FR 11126, 11177 (March 9, 2004). As discussed in the text, the Commission decided to retain the consolidation model, rather than proposing a new deconsolidation model, for core data.

<sup>191</sup> See Regulation NMS Release, 70 FR at 37566-37567 (addressing differences in distribution standards between core data and non-core data).

<sup>192</sup> Id.

commenters, however, recommended that “the Commission should expand the consolidated display requirement to include additional information on depth-of-book quotations, stating that the NBBO alone had become less informative since decimalization.”<sup>193</sup> Such an approach effectively would have treated an individual market’s depth-of-book order data as consolidated core data and thereby eliminated the operation of competitive forces on depth-of-book order data. The Commission did not adopt this recommendation, but instead decided to:

allow market forces, rather than regulatory requirements, to determine what, if any, additional quotations outside the NBBO are displayed to investors. Investors who need the BBOs of each SRO, as well as more comprehensive depth-of-book information, will be able to obtain such data from markets or third party vendors.<sup>194</sup>

Some commenters on the Proposal and the Petition recommended fundamental changes in the regulatory treatment of non-core data in general and depth-of-book quotations in particular.<sup>195</sup> The Commission, however, considered this issue in 2005 and continues to hold the views just described. It does not believe that circumstances have changed significantly since 2005 and will continue to apply a primarily market-based approach for assessing whether exchange proposals to distribute non-core data meet the applicable statutory standards.

The Exchange Act and its legislative history strongly support the Commission’s reliance on competition, whenever possible, in meeting its regulatory responsibilities for overseeing the SROs and the national market system. Indeed, competition among

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<sup>193</sup> Id. at 37567 (citation omitted).

<sup>194</sup> Id. (citations omitted) (emphasis added).

<sup>195</sup> See section III.A.4 above.

multiple markets and market participants trading the same products is the hallmark of the national market system.<sup>196</sup> A national market “system” can be contrasted with a single monopoly market that overwhelmingly dominates trading its listed products. Congress repeatedly emphasized the benefits of competition among markets in protecting investors and promoting the public interest. When directing the Commission to facilitate the establishment of a national market system, for example, Congress emphasized the importance of allowing competitive forces to work:

In 1936, this Committee pointed out that a major responsibility of the SEC in the administration of the securities laws is to “create a fair field of competition.” This responsibility continues today. The bill would more clearly identify this responsibility and clarify and strengthen the SEC’s authority to carry it out. The objective would be to enhance competition and to allow economic forces, interacting within a fair regulatory field, to arrive at appropriate variations in practices and services.<sup>197</sup>

In addition, Congress explicitly noted the importance of relying on competition in overseeing the activities of the SROs:

S. 249 would give the SEC broad authority not only to oversee the general development of a national market system but also to insure that the ancillary programs of the self-regulatory organizations and their affiliates are consistent with the best interests of the securities industry and the investing public. . . . This is not to suggest that under S. 249 the SEC would have either the responsibility or the power to operate as an ‘economic czar’ for the development of a national market system. Quite the contrary, for a fundamental premise of the bill is that the initiative for the development of the facilities of a national market system must come from private interests and will depend on the vigor of competition within the securities industry as broadly defined.<sup>198</sup>

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<sup>196</sup> See, e.g., Exchange Act Section 11A(a)(1)(C)(ii).

<sup>197</sup> S. Rep. No. 94-75, 94th Cong., 1st Sess. 8 (1975) (“Senate Report”).

<sup>198</sup> Senate Report at 12.

With respect to market information, Congress again expressed its preference for the Commission to rely on competition, but noted the possibility that competition might not be sufficient in the specific context of core data – the central facilities for the required distribution of consolidated data to the public:

It is the intent of the conferees that the national market system evolve through the interplay of competitive forces as unnecessary regulatory restrictions are removed. The conferees expect, however, that in those situations where competition may not be sufficient, such as in the creation of a composite quotation system or a consolidated transactional reporting system, the Commission will use the powers granted to it in this bill to act promptly and effectively to insure that the essential mechanisms of an integrated secondary trading system are put into effect as rapidly as possible.<sup>199</sup>

The Commission's approach to core data and non-core data follows this Congressional intent exactly. With respect to the systems for the required distribution of consolidated core data, the Commission retained a regulatory approach that uses joint-industry plans and a central processor designed to assure access to the best quotations and most recent last sale information that is so vital to investors. With respect to non-core data, in contrast, the Commission has maintained a market-based approach that leaves a much fuller opportunity for competitive forces to work.

This market-based approach to non-core data has two parts. The first is to ask whether the exchange was subject to significant competitive forces in setting the terms of its proposal for non-core data, including the level of any fees. If an exchange was subject to significant competitive forces in setting the terms of a proposal, the Commission will approve the proposal unless it determines that there is a substantial countervailing basis to find that the terms nevertheless fail to meet an applicable requirement of the Exchange

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<sup>199</sup> Conference Report at 92 (emphasis added).

Act or the rules thereunder. If, however, the exchange was not subject to significant competitive forces in setting the terms of a proposal for non-core data, the Commission will require the exchange to provide a substantial basis, other than competitive forces, in its proposed rule change demonstrating that the terms of the proposal are equitable, fair, reasonable, and not unreasonably discriminatory.

As discussed above, the Commission believes that, when possible, reliance on competitive forces is the most appropriate and effective means to assess whether terms for the distribution of non-core data are equitable, fair and reasonable, and not unreasonably discriminatory. If competitive forces are operative, the self-interest of the exchanges themselves will work powerfully to constrain unreasonable or unfair behavior. As discussed further below, when an exchange is subject to competitive forces in its distribution of non-core data, many market participants would be unlikely to purchase the exchange's data products if it sets fees that are inequitable, unfair, unreasonable, or unreasonably discriminatory. As a result, competitive forces generally will constrain an exchange in setting fees for non-core data because it should recognize that its own profits will suffer if it attempts to act unreasonably or unfairly. For example, an exchange's attempt to impose unreasonably or unfairly discriminatory fees on a certain category of customers would likely be counter-productive for the exchange because, in a competitive environment, such customers generally would be able respond by using alternatives to the exchange's data.<sup>200</sup> The Commission therefore believes that the existence of significant

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<sup>200</sup> See, e.g., Richard Posner, Economic Analysis of Law § 9.1 (5<sup>th</sup> ed. 1998) (discussing the theory of monopolies and pricing). See also U.S. Dep't of Justice & Fed'l Trade Comm'n, Horizontal Merger Guidelines § 1.11 (1992), as revised (1997) ("DOJ Merger Guidelines") (explaining the importance of alternative products in evaluating the presence of competition and defining markets and

competition provides a substantial basis for finding that the terms of an exchange's fee proposal are equitable, fair, reasonable, and not unreasonably or unfairly discriminatory.

Even when competitive forces are operative, however, the Commission will continue to review exchange proposals for distributing non-core data to assess whether there is a substantial countervailing basis for determining that a proposal is inconsistent with the Exchange Act.<sup>201</sup> For example, an exchange proposal that seeks to penalize market participants for trading in markets other than the proposing exchange would present a substantial countervailing basis for finding unreasonable and unfair discrimination and likely would prevent the Commission from approving an exchange proposal.<sup>202</sup> In the absence of such a substantial countervailing basis for finding that a proposal failed to meet the applicable statutory standards, the Commission would approve the exchange proposal as consistent with the Exchange Act and rules applicable to the exchange.

B. Review of Competitive Forces Applicable to NYSE Arca

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market power). Courts frequently refer to the Department of Justice and Federal Trade Commission merger guidelines to define product markets and evaluate market power. See, e.g., FTC v. Whole Foods Market, Inc., 502 F. Supp. 2d 1 (D.D.C. 2007); FTC v. Arch Coal, Inc., 329 F. Supp. 2d 109 (D.D.C. 2004).

<sup>201</sup> See Exchange Act Section 19(b)(2) (“The Commission shall approve a proposed rule change of a self-regulatory organization if it finds that such proposed rule change is consistent with the requirements of this title and the rules and regulations thereunder applicable to such organization. The Commission shall disapprove a proposed rule change of a self-regulatory organization if it does not make such finding.”)

<sup>202</sup> Cf. Regulation NMS Release, 70 FR at 37540 (in discussion of market access fees under Rule 610 of Regulation NMS, the Commission noted that “any attempt by an SRO to charge differential fees based on the non-member status of the person obtaining indirect access to quotations, such as whether it is a competing market maker, would violate the anti-discrimination standard of Rule 610.”).

The terms of an exchange’s proposed rule change to distribute market data for which it is an exclusive processor must, among other things, provide for an equitable allocation of reasonable fees under Section 6(b)(4), not be designed to permit unfair discrimination under Section 6(b)(5), be fair and reasonable under Rule 603(a)(1), and not be unreasonably discriminatory under Rule 603(a)(2). Because NYSE Arca is proposing to distribute non-core data, the Commission reviewed the terms of the Proposal under the market-based approach described above. The first question is whether NYSE Arca was subject to significant competitive forces in setting the terms of the Proposal.

At least two broad types of significant competitive forces applied to NYSE Arca in setting the terms of its Proposal to distribute the ArcaBook data: (1) NYSE Arca’s compelling need to attract order flow from market participants; and (2) the availability to market participants of alternatives to purchasing the ArcaBook data.

1. Competition for Order Flow

Attracting order flow is the core competitive concern of any equity exchange – it is the “without which, not” of an exchange’s competitive success. If an exchange cannot attract orders, it will not be able to execute transactions. If it cannot execute transactions, it will not generate transaction revenue. If an exchange cannot attract orders or execute transactions, it will not have market data to distribute, for a fee or otherwise, and will not earn market data revenue.<sup>203</sup>

In the U.S. national market system, buyers and sellers of securities, and the broker-dealers that act as their order-routing agents, have a wide range of choices of

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<sup>203</sup> See Exchange Market Data Coalition Letter at 3 (“The end product of these efforts – the listings, the members, the trading facilities, the regulation – is market data. Market data is the totality of the information assets that each Exchange creates by attracting order flow.”).

where to route orders for execution. They include, of course, any of the nine national securities exchanges that currently trade equities, but also include a wide variety of non-exchange trading venues: (1) electronic communication networks (“ECNs”) that display their quotes directly in the core data stream by participating in FINRA’s Alternative Display Facility (“ADF”) or displaying their quotations through an exchange; (2) alternative trading systems (“ATs”) that offer a wide variety of order execution strategies, including block crossing services for institutions that wish to trade anonymously in large size and midpoint matching services for the execution of smaller orders; and (3) securities firms that primarily trade as principal with their customer order flow.

NYSE Arca must compete with all of these different trading venues to attract order flow, and the competition is fierce. For example, in its response to the commenters, NYSE Arca notes that its share of trading in 2005 was 3.6% in Network A stocks, 23% in Network C stocks, and 30% in Network B stocks.<sup>204</sup> More recently during June 2008,

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<sup>204</sup> NYSE Arca Response III at 18 n. 44. The NYSE and NYSE Arca are wholly-owned subsidiaries of NYSE Group, Inc. One commenter stated that the NYSE had “combined Arca’s liquidity pool with its own,” and that “the networking effect of the NYSE Group’s combined pool of liquidity” had resulted in “greater market power over its pricing for market data.” SIFMA IV at 8 (emphasis in original). In fact, the NYSE and NYSE Arca liquidity pools have not been combined. The two exchanges operate as separate trading centers with separate limit order books, and each distributes its depth-of-book order data separately for separate fees. In analyzing the competitive position of NYSE Arca for purposes of distributing such data, the Commission has considered NYSE Arca both as a trading center separate from the NYSE and as part of the same corporate group as NYSE. It finds that in both contexts NYSE Arca was subject to significant competitive forces in setting the terms for the ArcaBook data. See section VI.C below for a discussion of the regulatory requirements applicable to individual national securities exchanges operating separate liquidity pools.

NYSE Arca share volume was 14.0% in Network A stocks, 16.1% in Network C stocks, and 26.7% in Network B stocks, adding up to 16.5% of total U.S. market volume.<sup>205</sup>

Given the competitive pressures that currently characterize the U.S. equity markets, no exchange can afford to take its market share percentages for granted – they can change significantly over time, either up or down.<sup>206</sup> Even the most dominant exchanges are subject to severe pressure in the current competitive environment. For example, the NYSE’s reported market share of trading in NYSE-listed stocks declined from 79.1% in January 2005 to 30.6% in June 2008.<sup>207</sup> In addition, a non-exchange entrant to equity trading – the BATS ECN – has succeeded in capturing 7.4% of trading in NYSE-listed stocks and 10.3% of trading in Nasdaq-listed stocks.<sup>208</sup> Another ECN – Direct Edge – has a matched market share of 3.7% in NYSE-listed stocks and 5.8% in Nasdaq-listed stocks.<sup>209</sup> Moreover, nearly all venues now offer trading in all U.S.-listed

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<sup>205</sup> Source: ArcaVision (available at [www.arcavision.com](http://www.arcavision.com)); see also NYSE Arca Response III at 18 (“NYSE Arca does not maintain a dominant share of the market in any of the three networks.”).

<sup>206</sup> See Exchange Market Data Coalition Letter at 4 (“Exchanges compete not only with one another, but also with broker dealers that match customer orders within their own systems and also with a proliferation of alternative trading systems (“ATs”) and electronic communications networks (“ECNs”) that the Commission has also nurtured and authorized to execute trades in any listed issue. As a result, market share of trading fluctuates among execution facilities based upon their ability to service the end customer.”).

<sup>207</sup> Source: ArcaVision (available at [www.arcavision.com](http://www.arcavision.com)).

<sup>208</sup> Lehman Brothers, Inc., Equity Research, “Exchanges June Volume Analysis” at 2 (July 2, 2008) (“Lehman Trading Volume Analysis”) at 2. The Commission recently granted an application by BATS Exchange, Inc. for registration as a national securities exchange. Securities Exchange Act Release No. 58375 (Aug. 18, 2008), 73 FR 49498 (Aug. 21, 2008).

<sup>209</sup> Lehman Trading Volume Analysis at 2.

equities, no matter the particular exchange on which a stock is listed or on which the most trading occurs. As a result, many trading venues stand ready to provide an immediately accessible order-routing alternative for broker-dealers and investors if an exchange attempts to act unreasonably in setting the terms for its services.

Table 1 below provides a useful recent snapshot of the state of competition in the U.S. equity markets in the month of June 2008:<sup>210</sup>

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<sup>210</sup> Source: ArcaVision (available at [www.arcavision.com](http://www.arcavision.com)).

<b>Table 1</b>			
Reported Share Volume in U.S-Listed Equities during June 2008 (%)			
<b>Trading Venue</b>	<b>All Stocks</b>	<b>NYSE-Listed</b>	<b>Nasdaq-Listed</b>
All Non-Exchange	31.9	28.9	38.0
Nasdaq	30.4	23.0	42.7
NYSE	17.4	30.6	0.0
NYSE Arca	16.5	14.0	16.1
National Stock Exchange	1.8	1.4	2.4
International Stock Exchange	0.9	1.4	0.2
American Stock Exchange	0.5	0.0	0.0
Chicago Stock Exchange	0.4	0.5	0.3
CBOE Stock Exchange	0.1	0.1	0.2
Philadelphia Stock Exchange	0.1	0.1	0.1

Perhaps the most notable item of information from Table 1 is that non-exchange trading venues collectively have a larger share of trading than any single exchange. Much of this volume is attributable to ECNs such as BATS and Direct Edge, noted above. In addition, the proliferation of non-exchange pools of liquidity has been a significant development in the U.S. equity markets.<sup>211</sup> Broker-dealers often check the

<sup>211</sup> See, e.g., NYSE Arca Response III at 17 (“If the brokerage firm is unable to internalize the trade, typically, it next takes the order to dark pools, crossing networks, ECNs, alternative trading systems, or other non-traditional execution facilities to search for an execution.”); <http://www.advancedtrading.com/directories/darkpool> (directory of more than 20 non-exchange pools of liquidity that are classified as “independent,” “broker-dealer-owned,” and “consortium-owned.”).

liquidity available in these pools as a first choice prior to routing orders to an exchange. In sum, no exchange possesses a monopoly, regulatory or otherwise, in the execution of order flow from broker-dealers.

The market share percentages in Table 1 strongly indicate that NYSE Arca must compete vigorously for order flow to maintain its share of trading volume. As discussed below, this compelling need to attract order flow imposes significant pressure on NYSE Arca to act reasonably in setting its fees for depth-of-book order data, particularly given that the market participants that must pay such fees often will be the same market participants from whom NYSE Arca must attract order flow.<sup>212</sup> These market participants particularly include the large broker-dealer firms that control the handling of a large volume of customer and proprietary order flow. Given the portability of order flow from one trading venue to another, any exchange that sought to charge unreasonably high data fees would risk alienating many of the same customers on whose orders it depends for competitive survival.<sup>213</sup>

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<sup>212</sup> See, e.g., Exchange Market Data Coalition Letter at 4 (“It is in the Exchange’s best interest to provide proprietary information to investors to further their business objectives, and each Exchange chooses how best to do that.”); Nasdaq Letter at 9 (“Like the market for electronic executions, the related market for proprietary data is also influenced by the equity investments of major financial institutions in one or more exchanges . . . . Equity investors control substantial order flow and transaction reports that are the essential ingredients of successful proprietary data products. Equity investors also can enable exchanges to develop competitive proprietary products . . . .”).

<sup>213</sup> See NYSE Arca Response III at 16 (“Markets compete with one another by seeking to maximize the amount of order flow that they attract. The markets base competition for order flow on such things as technology, customer service, transaction costs, ease of access, liquidity and transparency. In recent months, significant changes in market share, the rush to establish trade-reporting facilities for the reporting of off-exchange trades, frequent changes in transaction fees and new market data proposals have provided evidence of the intensity of the competition for order flow.”).

Some commenters asserted that an exchange’s distribution of depth-of-book order data is not affected by its need to attract order flow.<sup>214</sup> Attracting order flow and distributing market data, however, are in fact two sides of the same coin and cannot be separated.<sup>215</sup> Moreover, the relation between attracting order flow and distributing market data operates in both directions. An exchange’s ability to attract order flow determines whether it has market data to distribute, while the exchange’s distribution of market data significantly affects its ability to attract order flow.<sup>216</sup>

For example, orders can be divided into two broad types – those that seek to offer liquidity to the market at a particular price (non-marketable orders) and those that seek an immediate execution by taking the offered liquidity (marketable orders). The wide distribution of an exchange’s market data, including depth-of-book order data, to many market participants is an important factor in attracting both types of orders. Depth-of-book order data consists of non-marketable orders that a prospective buyer or seller has chosen to display. The primary reason for a prospective buyer or seller to display its trading interest at a particular price, and thereby offer a free option to all market

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<sup>214</sup> See section III.A.5 above.

<sup>215</sup> See, e.g., Larry Harris, Trading and Exchanges, Market Microstructure for Practitioners 99 (2003) (noting that it would be “very difficult for innovative trading systems to compete for order flow” if the data from those trading venues were not distributed).

<sup>216</sup> See, e.g., NYSE Arca Response III at 13 (in setting level of fees, one factor was “projected losses to NYSE Arca’s business model and order flow that might result from marketplace resistance to Arca Book Fees”); Report of the Advisory Committee on Market Information: A Blueprint for Responsible Change (September 14, 2001), Section VII.B.1 (available at [www.sec.gov](http://www.sec.gov)) (“[A] market’s inability to widely disseminate its prices undoubtedly will adversely impact its ability to attract limit orders and, ultimately, all order flow. This barrier to intermarket competition, in turn, could decrease liquidity and innovation in the marketplace.”).

participants at that price, is to attract contra trading interest and a fast execution. The extent to which a displayed non-marketable order attracts contra interest will depend greatly on the wide distribution of the displayed order to many market participants. If only a limited number of market participants receive an exchange's depth-of-book order data, it reduces the chance of an execution for those who display non-marketable orders on that exchange. Limited distribution of displayed orders thereby reduces the ability of the exchange to attract such orders. Moreover, by failing to secure wide distribution of its displayed orders, the exchange will reduce its ability to attract marketable orders seeking to take the displayed liquidity. In other words, limited distribution of depth-of-book order data will limit an exchange's ability to attract both non-marketable and marketable orders. Consequently, an exchange generally will have strong competitive reasons to price its depth-of-book order data so that it will be distributed widely to those most likely to use it to trade.<sup>217</sup>

A notable example of the close connection between a trading venue's distribution of order data and its ability to attract order flow was provided by the Island ECN in 2002. To avoid the application of certain regulatory requirements, Island ceased displaying its order book to the public in three very active exchange-traded funds ("ETFs") in which it

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<sup>217</sup> See NYSE Arca Response III at 18 ("If too many market professionals reject Arca Book as too expensive, NYSE Arca would have to reassess the Arca Book Fees because Arca Book data provides transparency to NYSE Arca's market, transparency that plays an important role in the competition for order flow."). This pressure on exchanges to distribute their order data widely is heightened for those exchanges that have converted from member-owned, not-for profit entities to shareholder-owned, for-profit companies. For-profit exchanges are more likely to place greater importance on distributing market information widely than on limiting such information for the use of their members.

enjoyed a substantial market share. After going “dark,” Island’s market share in the three ETFs dropped by 50%.<sup>218</sup>

This competitive pressure to attract order flow is likely what led NYSE Arca, and its predecessor corporation, to distribute its depth-of-book order data without charge in the past.<sup>219</sup> It now has made a business decision to begin charging for that data, apparently believing that it has a sufficiently attractive data product that the benefit obtained from increased data revenues will outweigh the potential harm of reduced order flow if significant numbers of data users choose not to pay the fee.<sup>220</sup> Commenters concede that NYSE Arca is entitled to charge a fee for its depth-of-book order data,<sup>221</sup> but claim that the fee chosen by NYSE Arca is unaffected by its need to attract order

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<sup>218</sup> See Terrence Hendershott and Charles. M. Jones, “Island Goes Dark: Transparency, Fragmentation, and Regulation,” 18 The Review of Financial Studies (No. 3) 743, 756 (2005); see also Nasdaq Letter at 7 (“[T]he 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 data products themselves.”). In contrast to the Island example, and as noted in the Nasdaq Letter at 9, an element of the BATS ECN’s business strategy over the last two years in gaining order flow has been to provide its order data to customers free of charge. See BATS Trading, Newsletter (July 2007) (available at <http://www.batstrading.com/newsletters/0707Newsletter.pdf>) (“BATS has chosen not to charge for many of the things for which our competitors charge. . . . More importantly, our market data is free. Why would a market charge its participants for the data they send to that market? Feel free to pose this same question to our competitors.”).

<sup>219</sup> Cf. NYSE Arca Response III at 4 (“Several years ago, certain [ECNs] began to make their real-time quotes available for free in order to gain visibility in the market place.”).

<sup>220</sup> NYSE Arca Response I at 4 (“[F]ees will enable the Exchange to further diversify its revenue to compete with its rivals. The Exchange believes that its business has reached the point where its customers are willing to pay for the value of the Exchange’s information.”).

<sup>221</sup> See, e.g., Petition at 9; SIFMA I at 7.

flow.<sup>222</sup> The Commission disagrees and notes that NYSE Arca, in setting the fee, acknowledged that it needed to balance its desire for market data revenues with the potential damage that a high fee would do to its ability to attract order flow.<sup>223</sup>

## 2. Availability of Alternatives to ArcaBook Data

In addition to the need to attract order flow, the availability of alternatives to an exchange's depth-of-book order data significantly affects the terms on which an exchange distributes such data.<sup>224</sup> The primary use of depth-of-book order data is to assess the depth of the market for a stock beyond that which is shown by the best-priced quotations that are distributed in core data. Institutional investors that need to trade in large size typically seek to assess market depth beyond the best prices, in contrast to retail investors who generally can expect to receive the best price or better when they trade in smaller sizes.<sup>225</sup>

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<sup>222</sup> See notes 147-149 above and accompanying text.

<sup>223</sup> NYSE Arca Response III at 13 (in setting the level of fees for ArcaBook data, NYSE Arca considered "projected losses to NYSE Arca's business model and order flow that might result from marketplace resistance to" the fees).

<sup>224</sup> See NYSE Arca Response III at 13 (in setting fees for ArcaBook data, NYSE Arca considered "the fact that Arca Book is primarily a product for market professionals, who have access to other sources of market data and who will purchase Arca Book only if they determine that the perceived benefits outweigh the cost"); see also the authorities cited in note 200 above. In considering antitrust issues, courts have recognized the value of competition in producing lower prices. See, e.g., Leegin Creative Leather Products v. PSKS, Inc., 127 S. Ct. 2705 (2007); Atlanta Richfield Co. v. United States Petroleum Co., 495 U.S. 328 (1990); Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574 (1986); State Oil Co. v. Khan, 522 U.S. 3 (1997); Northern Pacific Railway Co. v. U.S., 356 U.S. 1 (1958).

<sup>225</sup> The market information needs of retail investor are discussed at notes 229-336 below and accompanying text.

In setting the fees for its depth-of-book order data, an exchange must consider the extent to which sophisticated traders would choose one or more alternatives instead of purchasing the exchange's data.<sup>226</sup> Of course, the most basic source of information concerning the depth generally available at an exchange is the complete record of an exchange's transactions that is provided in the core data feeds. In this respect, the core data feeds that include an exchange's own transaction information are a significant alternative to the exchange's depth-of-book data product.

For more specific information concerning depth, market participants can choose among the depth-of-book order products offered by the various exchanges and ECNs.<sup>227</sup> A market participant is likely to be more interested in other exchange and ECN products when the exchange selling its data has a small share of trading volume, because the depth-of-book order data provided by other exchanges and ECNs will be proportionally more important in assessing market depth. As a result, smaller exchanges may well be inclined to offer their data for no charge or low fees as a means to attract order flow. Even larger exchanges, however, must consider the lower fees of other exchanges in setting the fees for the larger exchanges' data. Significant fee differentials could lead to

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<sup>226</sup> See NYSE Arca Response III at 17 (“As a result of all of the choices and discretion that are available to brokers, the displayed depth-of-book data of one trading center does not provide a complete picture of the full market for a security. . . . A brokerage firm has potentially dozens of different information sources to choose from in determining if, where, and how to represent an order for execution.”).

<sup>227</sup> See Nasdaq Letter at 7-8 (“The large number of SROs, TRFs, and ECNs that currently produce proprietary data or are currently capable of producing it provides further pricing discipline for proprietary data products. As shown on Exhibit A, each SRO, TRF, ECN and BD is currently permitted to produce proprietary data products, and many currently do or have announced plans to do so, including Nasdaq, NYSE, NYSEArca, and BATS.”).

shifts in order flow that, over time, could harm a larger exchange's competitive position and the value of its non-core data.

Market depth also can be assessed with tools other than depth-of-book order data. For example, market participants can “ping” the various markets by routing oversized marketable limit orders to access an exchange's total liquidity available at an order's limit price or better.<sup>228</sup> In contrast to depth-of-book order data, pinging orders have the important advantage of searching out both displayed and reserve (*i.e.*, nondisplayed) size at all price points within an order's limit price. Reserve size can represent a substantial portion of the liquidity available at exchanges.<sup>229</sup> It often will be available at prices that are better than or equal to an exchange's best displayed prices, and none of this liquidity will be discernible from an exchange's depth-of-book order data. Pinging orders thereby give the sender an immediate and more complete indication of the total liquidity available at an exchange at a particular time. Moreover, sophisticated order routers are capable of maintaining historical records of an exchange's responses to pinging orders over time to gauge the extent of total liquidity that generally can be expected at an exchange. These

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<sup>228</sup> See Regulation NMS Release, 70 FR at 37514 (discussion of pinging orders noting that they “could as aptly be labeled ‘liquidity search’ orders”).

<sup>229</sup> See, *e.g.*, NYSE Arca Response III at 17 (noting that brokers “may elect to have NYSE Arca hold a portion of the order as hidden interest that NYSE Arca holds in reserve, which means that NYSE Arca will not include the undisplayed portion of the order as part of the Arca Book display”); Michael Scotti, “The Dark Likes Nasdaq,” *Traders Magazine* (May 1, 2007) (quoting statement of Nasdaq's executive vice president that 15 to 18 percent of Nasdaq's executed liquidity is non-displayed).

records are a key element used to program smart order routing systems that implement the algorithmic trading strategies that have become so prevalent in recent years.<sup>230</sup>

Another alternative to depth-of-book order data products offered by exchanges is the threat of independent distribution of order data by securities firms and data vendors.<sup>231</sup> As noted above, one of the principal market data reforms adopted in 2005 was to authorize the independent distribution of data by individual firms. To the extent that one or more securities firms conclude that the cost of exchange depth-of-book order products is too high and appreciably exceeds the cost of aggregating and distributing such data, they are entitled to act independently and distribute their own order data, with or without a fee. Indeed, a consortium of major securities firms in Europe has undertaken such a market data project as part of the implementation of the Markets in Financial Instruments Directive (“MiFID”) adopted by the European Union.<sup>232</sup> No securities statute or regulation prevents U.S. firms from undertaking an analogous project in the

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<sup>230</sup> See, e.g., [www.advancedtrading.com/directories/dark-algorithms](http://www.advancedtrading.com/directories/dark-algorithms) (descriptions of product offerings for “dark algorithms” that seek undisplayed liquidity at multiple trading venues); EdgeTrade, Inc., “EdgeTrade issues white paper on market fragmentation and unprecedented liquidity opportunities through smart order execution” (September 10, 2007) (available at [www.edgetrade.com](http://www.edgetrade.com)) (“EdgeTrade’s smart order execution strategy . . . simultaneously sprays aggregated dark pools and public markets, and then continuously moves an order in line with shifting liquidity until best execution is fulfilled.”).

<sup>231</sup> See Nasdaq Letter at 3 (“Proprietary optional data may be offered by a single broker-dealer, a group of broker-dealers, a national securities exchange, or a combination of broker-dealers or exchanges, unlike consolidated data which is only available through a consortium of SROs.”).

<sup>232</sup> The project – currently named “Markit BOAT” – distributes both quotes and trades and is described at <http://www.markit.com/information/boat/boat-data.html>. It currently charges fees of 120 euros per month per user for its quote and trade data. See Nasdaq Letter at 9 (noting the potential for firms to export Project BOAT technology to the United States).

U.S. for the display of depth-of-book order data. This data could encompass orders that are executed off of the exchanges, as well as orders that are submitted to exchanges for execution. If major U.S. firms handling significant order flow participated in the project, the project could collect and distribute data that covered a large proportion of liquidity in U.S. equities.

The Commission recognizes that the depth-of-book order data for a particular exchange may offer advantages over the alternatives for assessing market depth. The relevant issue, however, is whether the availability of these alternatives imposes significant competitive restraints on an exchange in setting the terms, particularly the fees, for distributing its depth-of-book order data. For example, Nasdaq has a substantial trading share in Nasdaq-listed stocks, yet only 19,000 professional users purchase Nasdaq's depth-of-book data product and 420,000 professional users purchase core data in Nasdaq-listed stocks.<sup>233</sup> A reasonable conclusion to draw from this disparity in the number of professional users of consolidated core data and Nasdaq's non-core data is that the great majority of professional users either believe they do not need Nasdaq's depth-of-book order data or simply do not think it is worth \$76 per month to them (approximately \$3.50 per trading day) compared to other sources of information on market depth in Nasdaq-listed stocks. The fact that 95% of the professional users of core data choose not to purchase the depth-of-book order data of a major exchange strongly suggests that no exchange has monopoly pricing power for its depth-of-book order data.<sup>234</sup>

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<sup>233</sup> Nasdaq Letter at 6.

<sup>234</sup> See id. ("Empirical sales data for Nasdaq TotalView, Nasdaq's proprietary depth-of-book data, demonstrate that broker-dealers do not consider TotalView to be

In sum, there are a variety of alternative sources of information that impose significant competitive pressures on an exchange in setting fees for its depth-of-book order data. The Commission believes that the availability of these alternatives, as well as NYSE Arca's compelling need to attract order flow, imposed significant competitive pressure on NYSE Arca to act equitably, fairly, and reasonably in setting the terms of the Proposal.

### 3. Response to Commenters on Competition Issues

Some commenters suggested that exchanges are not constrained by competitive forces in distributing their order data because Exchange Act rules require broker-dealers to provide their orders to an exchange, and that exchanges therefore enjoy a regulatory monopoly.<sup>235</sup> As discussed above, however, exchanges face fierce competition in their efforts to attract order flow. For the great majority of orders, Exchange Act rules do not

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required for compliance with Regulation NMS or any other regulation. . . . [O]f the 735 broker-dealer members that trade Nasdaq securities, only 20 or 2.7 percent spend more than \$7,000 per month on TotalView users. Nasdaq understands that firms with more than 100 TotalView professional users generally provide TotalView to only a small fraction of their total user populations.”).

<sup>235</sup> See, e.g., Bloomberg Letter at 4; Financial Services Roundtable Letter at 1; NetCoalition III at 6. Some commenters suggested that broker-dealers were required to provide their data to exchanges for free and then buy that data back from the exchanges. NSX Letter at 1; SIFMA III at 12. A broker-dealer, however, has no need to buy back its own data, with which it is already familiar. Rather, broker-dealers need to see data submitted by other broker-dealers and market participants. This need is served by the core function of a securities exchange, which is to provide a central point for bringing buy and sell orders together, thereby enabling the resulting market data to be distributed to all market participants. See, e.g., Section 3(a)(1) of the Exchange Act, 15 U.S.C. 78c(a)(1) (“exchange” defined as, among other things, “facilities for bringing together purchasers and sellers of securities”).

require that they be routed to an exchange.<sup>236</sup> These include all marketable orders and most non-marketable orders. With respect to certain types of non-marketable orders, two Exchange Act rules can require broker-dealers to provide such orders to an exchange in certain circumstances, but only when the broker-dealer chooses to do business on the exchange. Rule 602 of Regulation NMS<sup>237</sup> requires certain broker-dealers, once they have chosen to communicate quotations on an exchange, to provide their best quotations to the exchange.<sup>238</sup> Rule 604 of Regulation NMS<sup>239</sup> requires market makers and specialists to reflect their displayable customer limit orders in their quotations in certain circumstances, but provides an exception if the order is delivered for display through an exchange or FINRA, or to a non-exchange ECN that delivers the order for display through an exchange or FINRA. Most significantly, while these rules can require certain orders to be displayed through an exchange or FINRA, broker-dealers have a great deal of flexibility in deciding which exchange or FINRA. As discussed above, exchanges

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<sup>236</sup> For example, a broker-dealer commenter asserted that exchanges enjoy a “government-protected monopoly” as exclusive processors of their market information. Schwab Letter at 6; see also SIFMA IV at 7 (“Normal market forces cannot be relied upon here because of the unique structure of the market for data that the exchanges compile from their captive broker-dealer customers and then sell back to them.”). As noted in Table 1 above, non-exchange trading venues now execute more volume in U.S.-listed equities than any single exchange.

<sup>237</sup> 17 CFR 242.602 (previously designated as Rule 11Ac1-1).

<sup>238</sup> Only broker-dealers that choose to participate on an exchange as “responsible broker-dealers” are required to provide their best bid and best offer to such exchange. Rule 602(b) and Rule 600(b)(65)(i) of Regulation NMS. Broker-dealers that participate only in the over-the-counter (i.e., non-exchange) market as responsible broker-dealers are required to provide their quotations to FINRA, a not-for-profit membership organization of broker-dealers. Rule 602(b) and Rule 600(b)(65)(ii) of Regulation NMS.

<sup>239</sup> 17 CFR 242.604 (previously designated as Rule 11Ac1-4).

compete vigorously to display the non-marketable orders handled by broker-dealers. No particular exchange has a regulatory monopoly to display these orders.<sup>240</sup>

Some commenters asserted that exchanges act as monopolies in distributing depth-of-book order data because they are the exclusive processors of such data, as defined in Section 3(a)(22)(B) of the Exchange Act. Many businesses, however, are the exclusive sources of their own products, but this exclusivity does not mean that a business has monopoly pricing power when selling its product and is impervious to competitive pressures. The particular circumstances of the business and its product must be examined. As discussed above, the U.S. exchanges are subject to significant competitive forces in setting the terms for their depth-of-book order products, including the need to attract order flow and the availability of alternatives to their depth-of-book order products. Consequently, NYSE Arca does not have monopoly pricing power for ArcaBook data merely because it meets the statutory definition of an exclusive processor of the data.<sup>241</sup>

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<sup>240</sup> One commenter asserted that “exchanges have government-granted exclusive access to market data for securities listed in their respective markets.” SIFMA I at 12. In fact, a listing exchange does not have any particular privileges over other exchanges in attracting quotation and trade data in its listed stocks. Rather, other exchanges are free to trade such stocks pursuant to unlisted trading privileges, and the listing exchange must compete with those exchanges for order flow. If the listing exchange is unable to attract order flow, it will not have quotations or trades to distribute.

<sup>241</sup> A straightforward example may help illustrate this point. Table 1 shows that there are several exchanges with a very small share of trading volume. Such an exchange would meet the statutory definition of an exclusive processor, but clearly would be unable to exert monopoly pricing power if it attempted to sell its depth-of-book order data at an unreasonably high price. Accordingly, the relevant issue is not whether an exchange falls within the statutory definition of an exclusive processor, but whether it is subject to significant competitive forces in setting the terms for distribution of its depth-of-book data.

Commenters cited a decision of the U.K. competition authorities concerning proposed acquisitions of the London Stock Exchange plc (“LSE”) for the proposition that an exchange is a monopolist of its proprietary market information.<sup>242</sup> Their reliance on this decision is misplaced for two important reasons. First, unlike the U.S. where the core data feeds provide an essential source of information for every exchange’s most valuable data – its best quoted prices and last sale information – the LSE’s proprietary data is the sole source of information for trading on the LSE. As a result, market participants have few, if any, useful alternatives for LSE proprietary data. In the U.S., in contrast, the availability of an exchange’s essential trading information in the core data feeds, as well as other valuable alternatives, discussed above, for assessing market depth beyond the best quoted prices, precludes the U.S. exchanges from exerting monopoly power over the distribution of their non-core data. Second, there historically has been very little effective competition among markets for order flow in the U.K. The U.K. Competition Commission, for example, found that the most important competitive constraint on the LSE was not the existence of other trading venues with significant trading volume in LSE-listed stocks, but rather “primarily, the threat that [other exchanges, including foreign exchanges such as the NYSE and Nasdaq] will expand their services and compete directly with LSE.”<sup>243</sup> In contrast, the U.S. has a national market system for trading equities in which competition is provided not merely by the threat of

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<sup>242</sup> NetCoalition IV at 9; SIFMA V at 8.

<sup>243</sup> U.K. Competition Commission, A Report on the Proposed Acquisition of London Stock Exchange plc by Deutsche Borse AG or Euronext NV (November 2005), at 57 (emphasis added). The intensity of competition among markets trading the same products in Europe could increase substantially in the wake of the implementation of MiFID in November 2007.

other markets attempting to trade an exchange's listed products, but by the on-the-ground existence of multiple markets with a significant share of trading in such products. These competitors also distribute depth-of-book order products with substantial liquidity in the same stocks included in an exchange's depth-of-book product. In sum, the competitive forces facing NYSE Arca in its distribution of ArcaBook data were entirely inapplicable to the LSE in its distribution of proprietary data in 2005.

In addition, the existence of significant competitive forces applicable to NYSE Arca renders inapposite the citations of commenters to statements in Exchange Act legislative history and Commission releases regarding monopoly data distribution. Such statements were made in the context of the central processors of core data for the Networks, which in fact have monopoly pricing power for such mandated data. Central processors of core data therefore are in a very different economic and legal position than NYSE Arca as exclusive processor for its depth-of-book order data.<sup>244</sup>

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<sup>244</sup> One commenter cited two papers for the claim that exchanges have government-conferred monopolies over the collection and distribution of trading data. NetCoalition IV at 9-10 (citing Wilkie Farr & Gallagher, counsel to Bloomberg L.P., "Discussion Paper: Competition, Transparency, and Equal Access to Financial Market Data" (September 24, 2002) (submitted by Bloomberg L.P. in consultation with George A. Hay and Erik R. Sirri); Erik R. Sirri, "What glory price? Institutional form and the changing nature of equity trading" (Federal Reserve Bank of Atlanta 2000 Financial Markets Conference on e-Finance, October 15-17). Dr. Sirri currently is Director of the Commission's Division of Trading and Markets. The papers were prepared when he was not a member of the Commission's staff. As discussed at length above, the commenter's claim that exchanges have a monopoly over the collection and distribution of trading data confuses core data, which Commission rules require to be collected by a central processor pursuant to the joint-industry Plans, and non-core data, which the individual exchanges must compete to attract from market participants. Indeed, the major shifts in order flow among exchanges and other trading venues in the years since the papers were written in 2000 and 2002 amply demonstrate that no exchange has a monopoly over the collection of orders displayed in the exchanges' depth-of-book data feeds. As noted above (text accompanying note

For example, commenters cited a passage from the legislative history of the 1975 amendments to the Exchange Act for the proposition that any exclusive processor must be considered a monopoly, but this passage applies only to the central processors of consolidated core data that Rule 603(b) requires to be consolidated:

Despite the diversity of views with respect to the practical details of a national market system, all current proposals appear to assume there will be an exclusive processor or service bureau to which the exchanges and the NASD will transmit data and which in turn will make transactions and quotation information available to vendors of such information. Under the composite tape “plan” declared effective by the Commission, SIAC would serve as this exclusive processor. The Committee believes that if such a central facility is to be utilized, the importance of the manner of its regulation cannot be overestimated. . . . The Committee believes that if economics and sound regulation dictate the establishment of an exclusive central processor for the composite tape or any other element of the national market system, provision must be made to insure that this central processor is not under the control or domination of any particular market center. Any exclusive processor is, in effect, a public utility, and thus it must function in a manner which is absolutely neutral with respect to all market centers, all market makers, and all private firms. Although the existence of a monopolistic processing facility would not necessarily raise antitrust problems, serious antitrust questions would be posed if access to this facility and its services were not available on reasonable and nondiscriminatory terms to all in the trade or its charges were not reasonable.<sup>245</sup>

These Congressional concerns apply to a central processor that has no competitors in the distribution of data that must be consolidated from all the markets. They do not apply to the independent distribution of non-core data by an individual exchange that is subject to significant competitive forces.

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207), for example, the NYSE’s market share in its listed stocks has declined from 79.1% in January 2005 to 30.6% in June 2008. For these reasons and those explained in the text, the two papers are outdated. Neither the NYSE, nor any other exchange, currently has a monopoly over the collection and distribution of depth-of-book order data in its listed stocks.

<sup>245</sup> Senate Report at 11-12 (emphasis added).

Commenters on the Draft Order questioned whether its reliance on competitive forces is consistent with Exchange Act legal standards.<sup>246</sup> Their discussion, however, appears to conflate: (1) the factual issue of whether competitive forces significantly constrain the exchanges in setting the terms for their non-core data; with (2) the legal issue of whether, if such competitive forces exist, the Commission is authorized to consider those forces in determining whether an exchange proposal meets the applicable Exchange Act standards. If an exchange could, in fact, exert monopoly power over its pricing of non-core data, it obviously would be inappropriate for the Commission to rely on non-existent competitive forces as a basis for approving an exchange proposal. If significant competitive forces do apply to an exchange, the Commission believes that considering them in its review is fully consistent with its regulatory responsibilities.

For example, the Commission does not agree with commenters' argument that the phrase "fair and reasonable" in the Exchange Act requires the Commission always to undertake a cost-based review of proposed exchange fees because it uses such an approach when applying the fair and reasonable standard in other circumstances.<sup>247</sup> Applying the abstract standard "fair and reasonable" to a specific proposal necessitates the use of factors that are appropriate to the circumstances. In assessing the fairness and reasonableness of a price, courts have emphasized that the existence of competitive forces is a particularly appropriate factor.<sup>248</sup>

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<sup>246</sup> NetCoalition V at 7-18; SIFMA IX at 8-20.

<sup>247</sup> NetCoalition V at 15-18; SIFMA IX at 12-13.

<sup>248</sup> See, e.g., Morgan Stanley Capital Group, Inc. v. Public Utility Dist. No. 1, 554 U.S. \_\_\_, 128 S.Ct. 2733, 2738 (2008) ("The statutory requirement that rates be 'just and reasonable' is obviously incapable of precise judicial definition, and we afford great deference to the Commission in its rate decisions. We have

In addition, commenters on the Draft Order asserted that it improperly relied on competition to the exclusion of all other factors.<sup>249</sup> In fact, the Commission considered several factors. The first step of the market-based approach to non-core data proposals examines competitive factors to determine whether there is a substantial basis to believe that a proposed fee meets the applicable Exchange Act standards. In the second step, the Commission will evaluate whether there nevertheless is a substantial countervailing basis to find that a proposal is inconsistent with the Exchange Act, including the unfair discrimination concerns raised by a commenter.<sup>250</sup>

Commenters also cited a passage from the Commission's Market Information Concept Release for the proposition that an exchange must submit cost data to justify a proposed fee for the exchange's depth-of-book order data.<sup>251</sup> The Release stated that

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repeatedly emphasized that the Commission is not bound to any one ratemaking formula.”) (citations omitted); Elizabethtown Gas Co. v. FERC, 10 F.3d 866, 870 (D.C. Cir. 1993) (“[T]he Supreme Court ‘has repeatedly held that the just and reasonable standard does not compel the Commission to use any single pricing formula . . . ,’ and we have indicated that when there is a competitive market FERC may rely upon market-based prices in lieu of cost-of-service regulation to assure a ‘just and reasonable’ result.”) (citations omitted).

<sup>249</sup> NetCoalition V at 8-9; SIFMA IX at 10-11.

<sup>250</sup> SIFMA IX at 11.

<sup>251</sup> See section III.A.2 above. As noted in section III.A.7 above, commenters recommended a variety of market data regulatory solutions, in addition to a cost-based justification of fees. One was a regulatory mandate that exchanges place their market data operations in separate subsidiaries and provide their data to third parties on the same terms they make the data available to the subsidiary. Given its determination that NYSE Arca was subject to significant competitive forces in setting the terms of the Proposal, the Commission does not believe this regulatory mandate is necessary or appropriate. It also notes that the recommendation alone would not address the potential problem of an exchange's unreasonably high fees under the per device fee structure that is used throughout the exchange industry. For example, the proposed fees for ArcaBook data would be levied based on the number of professional and non-professional subscribers who receive the data on

“the total amount of market information revenues should remain reasonably related to the cost of market information.”<sup>252</sup> The Market Information Concept Release, however, was published in 1999, prior to the start of decimal trading and to the increased usefulness of non-core data distributed outside the Networks. The Market Information Concept Release in general, and the cited statement in particular, solely addressed a central exclusive processor that has no competitors in distributing consolidated core data to the public pursuant to the Plans.<sup>253</sup>

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their devices. Regardless of whether subscribers obtained their data from an exchange subsidiary or another competing vendor, the exchange would receive the same total amount of fees based on the total number of subscribers who chose to receive the data. From the standpoint of maximizing its revenues from per device fees, the exchange likely would be indifferent to whether subscribers purchased through its subsidiary or elsewhere. It therefore would be willing to make the data available to its subsidiary for the same per device fees that it made the data available to third parties. Moreover, to the extent that an exchange would want to benefit a subsidiary that it was required to create to act as a vendor of market data, that requirement need not cause the exchange to charge lower fees. Instead, it could create conflicts of interest under which the exchange would have incentives to favor the subsidiary over other vendors in ways that might be difficult to monitor effectively. Under its proposal, NYSE Arca will make the ArcaBook data available to vendors on a non-discriminatory basis. For the same reason that NYSE Arca’s proposed fees for the ArcaBook data are not unreasonably high – the competitiveness of the market for that data – other potential problems cited by commenters as arising in a non-competitive environment are not an obstacle to approval of the NYSE Arca proposal under the relevant Exchange Act provisions and rules.

<sup>252</sup> 64 FR at 70627.

<sup>253</sup> See, e.g., 64 FR at 70615 (“These [joint-SRO] plans govern all aspects of the arrangements for disseminating market information. . . . The plans also govern two of the most important rights of ownership of the information – the fees that can be charged and the distribution of revenues derived from those fees. As a consequence, no single market can be said to fully ‘own’ the stream of consolidated information that is made available to the public. Although markets and others may assert a proprietary interest in the information that they contribute to the stream, the practical effect of comprehensive federal regulation of market information is that proprietary interests in this information are subordinated to the Exchange Act’s objectives for a national market system.”)

Moreover, the Commission did not propose, much less adopt, a “strictly cost-of-service (or ‘ratemaking’) approach to its review of market information fees in every case,” noting that “[s]uch an inflexible standard, although unavoidable in some contexts, can entail severe practical difficulties.”<sup>254</sup> Rather, the Commission concluded that “Congress, consistent with its approach to the national market system in general, granted the Commission some flexibility in evaluating the fairness and reasonableness of market information fees.”<sup>255</sup>

Some commenters suggested that depth-of-book order data has become so important since the initiation of decimal trading that broker-dealers now are effectively required to purchase the exchanges’ depth-of-book data products.<sup>256</sup> No regulatory

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<sup>254</sup> 64 FR at 70619. In the Market Information Concept Release, the Commission discussed the one context in which it had previously adopted a strict cost-of-service standard for market data fees – a denial of access proceeding involving the NASD and Instinet. See supra, note 47. It emphasized, however, that the scope of its decision was limited to the “particular competitive situation presented in the proceedings.” 64 FR at 70622-70623. Specifically, the NASD essentially had sought to charge a retail rate for a wholesale product that would have severely curtailed the opportunity for a data vendor like Instinet to compete with the NASD in the retail market. The practical difficulties of implementing the strict cost-of-service approach were amply demonstrated by the long and difficult history of the attempt to determine the NASD’s cost of producing the data. See 64 FR at 70623.

<sup>255</sup> Id. at 70619. Commenters also pointed to Commission and staff statements about costs in the context of the entry of an exchange as a new participant in one of the Plans. NetCoalition IV at 12-14; SIFMA V at 9-10. Again, competitive forces are not operative in this context because Rule 603(b) requires an exchange to join the Plans and disseminate its best quotations and trades through a central processor in the core data feeds. A cost-based analysis is necessary in this context, not because it is universally required by the Exchange Act to determine fair and reasonable fees, but because the absence of competitive forces impels the use of a regulatory alternative.

<sup>256</sup> See section III.A.4 above. Commenters cited a passage from the Regulation NMS Release for the proposition that exchanges could exert market power when distributing non-core data. NetCoalition III at 6; SIFMA V at 11-12. The

requirement, however, compels broker-dealers to purchase an exchange's depth-of-book order data. As discussed above, only core data is necessary for broker-dealers to comply with the consolidated display requirements of Rule 603(c) of Regulation NMS.<sup>257</sup> In addition, only core data is necessary to comply with the trade-through requirements of Rule 611 of Regulation NMS.<sup>258</sup>

Commenters also asserted that an exchange's depth-of-book order data may be necessary for a broker-dealer to meet its duty of best execution to its customers.<sup>259</sup> The Commission believes, however, that broker-dealers are not required to obtain depth-of-book order data, including the NYSE Arca data, to meet their duty of best execution. For example, a broker-dealer can satisfy this duty "to seek the most favorable terms reasonably available under the circumstances for a customer's transaction"<sup>260</sup> by, among other things, reviewing executions obtained from routing orders to a market. Under established principles of best execution, a broker-dealer is entitled to consider the cost

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concern mentioned in the Regulation NMS Release, however, explicitly applied only to the "best quotations and trades" of an SRO – i.e., an SRO's core data – and not to non-core data.

<sup>257</sup> Note 183 above and accompanying text. Rule 603(c) requires broker-dealers and vendors, in certain trading and order-routing contexts, to provide a consolidated display of the national best bid and offer and the most recent last sale report. All of this information is included in the core data feeds.

<sup>258</sup> Note 185 above and accompanying text. When it adopted Regulation NMS, the Commission declined to adopt a proposal that would have extended trade-through protection to depth-of-book quotations if the market displaying such quotations voluntarily disseminated them in the consolidated core quotation stream. Regulation NMS Release, 70 FR at 37529.

<sup>259</sup> See notes 60 above and accompanying text.

<sup>260</sup> See Securities Exchange Act Release No. 37619A (Sept. 6, 1996), 61 FR 48290, 48322 (Sept. 12, 1996) ("Order Handling Rules Release").

and difficulty of trading in a particular market, including the costs and difficulty of assessing the liquidity available in that market, in determining whether the prices or other benefits offered by that market are reasonably available.<sup>261</sup> Although the Commission has urged broker-dealers to “evaluate carefully” the different options for execution, we have acknowledged that cost considerations are legitimate constraints on what a broker-dealer must do to obtain best execution.<sup>262</sup> In order to “evaluate carefully” execution options a broker-dealer need not purchase all available market data. The Commission does not view obtaining depth-of-book data as a necessary prerequisite to broker-dealers’ satisfying the duty of best execution.<sup>263</sup>

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<sup>261</sup> See Order Handling Rules Release, 61 FR at 48323 (acknowledging that, consistent with best execution, broker-dealers may take into account cost and feasibility of accessing markets and their price information); Regulation NMS Release, 70 FR at 37538 n. 341 (noting that the “cost and difficulty of executing an order in particular market” is a relevant factor in making a best execution determination). NYSE Arca and Nasdaq also stated their view that depth-of-book order products are not required for best execution purposes. NYSE Arca Response III at 18; Nasdaq Letter at 5-6.

<sup>262</sup> Order Execution Obligations, Proposing Release, Securities Exchange Act Release No. 36310 (Sept. 29, 1995), 60 FR 52792 at 52794 (Oct. 10, 1995) (“While not all markets and trading systems are equally accessible to large and small broker-dealers, and not all order handling technologies are equally affordable to all broker-dealers, when efficient and cost-effective systems are readily accessible, broker-dealers must evaluate carefully whether they can be used in fulfilling their duty of best execution.”).

<sup>263</sup> Some broker-dealers may conclude that, as a business matter to attract customers and generate commissions, they should obtain depth-of-book order data from one or more exchanges to inform their order-routing and pricing decisions. As with any other business decision, if the costs of obtaining the market data outweigh the benefits, broker-dealers will not buy it. This will put pressure on the exchange selling the data to lower the price that it charges. If, however, such firms believed that an exchange’s depth-of-book order product is overpriced for certain business purposes, they could limit their use of the product to other contexts, such as “black-box” order routing systems and a block trading desk, where the depth-of-book data feed is most directly used to assess market depth. The firm would not display the data widely throughout the firm as a means to minimize the fees that

Commenters on the Draft Order questioned whether it lowered the standard of best execution and whether its reasoning would be accepted in other legal contexts,<sup>264</sup> but the commenters cited no legal authority to support their concerns. Moreover, contrary to the claim that “ascertaining the total price of an average retail trade requires depth of book data,”<sup>265</sup> the inferior prices in depth-of-book data provide a poor basis to assess the quality of execution of retail orders. As discussed below, the availability of substantial undisplayed liquidity enables such orders to be executed on average at prices better than even the best displayed quotes in core data.<sup>266</sup> In sum, the Commission has not lowered the standard of best execution by recognizing that there are reasonable tools other than depth-of-book data to obtain high-quality executions of customer orders.

#### 4. Response to Economic Assessments of the Draft Order

Three commenters submitted economic assessments (with supplements) of the Draft Order. The Ordovery/Bamberger Statement agreed with the Draft Order’s conclusion that NYSE Arca was subject to significant competitive forces that constrained its pricing of the ArcaBook data. It noted that “if competition is effective, regulation is

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must be paid for the data. This limited use of the data would drastically reduce the revenues that an exchange might have sought to obtain by charging a high fee and therefore be self-defeating for the exchange. In sum, exchanges will be subject to competitive pressures to price their depth-of-book order data in a way that will promote wider distribution and greater total revenues.

<sup>264</sup> NetCoalition V at 7; SIFMA IX at 19-20.

<sup>265</sup> NetCoalition V at 7 (emphasis in original).

<sup>266</sup> The execution quality of retail orders is discussed below at notes 306-308 and accompanying text.

not only not needed, but can distort the operations of the market and lead to unforeseen and unintended consequences that can harm the trading public.”<sup>267</sup>

In contrast, the SLCG Study and the Evans Report disputed that Draft Order’s conclusion that NYSE Arca was subject to significant competitive forces. As discussed below, the Commission has reviewed their data and analysis and does not find them persuasive for three broad reasons:

(1) although the two assessments purport to accept that exchanges must compete to attract order flow, their theoretical attempts to wall off this order flow competition from data competition are unconvincing – the two market forces are integrally linked in the real world of exchange competition;

(2) in rejecting all potential substitutes for an exchange’s depth-of-book data, the two economic assessments focus narrowly on whether alternatives replicate the exchange’s specific data and thereby miss the critically important bigger picture of whether such data is in fact necessary for traders effectively to assess the available liquidity in a stock; and

(3) the two economic assessments fail to recognize the important ways in which the Exchange Act regulatory structure effectively promotes market data competition, yet suggest regulatory alternatives that would be costly and difficult to implement and still would offer less reason to expect an efficient outcome than relying primarily on the current level of competitive forces.

a. Order Flow and Market Data Competition

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<sup>267</sup> Ordovery/Bamberger Statement at 2.

Both economic assessments purport to accept the existence of competition for order flow among exchanges and other trading venues.<sup>268</sup> They take different approaches, however, in attempting to explain why this competition for order flow does not impose significant constraints on the exchanges in setting the terms for their depth-of-book data.

In its analysis of the “supply-side conditions” of market data, the SLCG Study says that it will explain “why fierce competition among exchanges is not likely to result in competitively priced exclusive data when significant ‘network externalities’ are present in the market for order flow.”<sup>269</sup> Its analysis is unpersuasive for two primary reasons. First, if network externalities are truly operative in the market for order flow, they should impede competition for order flow. For example, the SLCG Study notes that “[a]t the individual security level, the order flow externality makes it highly likely that a dominant liquidity-providing market center will emerge.”<sup>270</sup> The SLCG Study does not explain, however, how network externalities could operate in the market for order flow, impede competition for market data, but not impede fierce competition for order flow. If there is competition for order flow, there necessarily will be competition for the supply of market data because order flow creates the very data to be supplied, and vice versa. The defect of the SLCG analysis highlights the difficulty of separating two aspects of exchange competition that are integrally linked.

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<sup>268</sup> SLCG Study at 2; Evans Report at 2.

<sup>269</sup> SLCG Study at 2.

<sup>270</sup> SLCG Study at 3.

Second, the SLCG Study attempts to show that NYSE Euronext and Nasdaq dominate trading in, respectively, NYSE-listed stocks and Nasdaq-listed stocks by offering Herfindahl Index statistics on market concentration. Based on these statistics, the SLCG Study concludes that “trading is highly concentrated and that the listing exchange is the dominant exchange.”<sup>271</sup>

This conclusion badly misuses the Herfindahl Index. In particular, a “concentrated” market as measured by the Herfindahl Index does not mean there is an absence of competition in the market. Rather, the U.S. Department of Justice (“DOJ”) uses the Index to assess whether the existing competition in a market would be substantially lessened by a proposed merger.<sup>272</sup> In this case, the SLCG Study’s misuse of the Herfindahl Index is quite apparent, given that the DOJ specifically found that the U.S. equity markets were competitive in November 2005 when it investigated the merger of NYSE and Archipelago Holdings and the merger of Nasdaq and Instinet Group Inc.<sup>273</sup> The DOJ concluded that neither merger would be “likely to reduce competition substantially” because the “planned and likely entry of several firms . . . should result in

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<sup>271</sup> SLCG Study at 10.

<sup>272</sup> DOJ Merger Guidelines § 0.1 (“The Guidelines are designed primarily to articulate the analytical framework the Agency applies in determining whether a merger is likely substantially to lessen competition, not to describe how the Agency will conduct the litigation of cases that it decides to bring.”).

<sup>273</sup> U.S. Department of Justice, Press Release No. 05-616, “Department of Justice Antitrust Division Statement on the Closings of Its Two Stock Exchange Investigations” (Nov. 16, 2005) (available at [http://www.usdoj.gov/opa/pr/2005/November/05\\_at\\_616.html](http://www.usdoj.gov/opa/pr/2005/November/05_at_616.html)).

additional viable alternatives to the two merged firms sufficient to ensure that the markets remain competitive.”<sup>274</sup>

Level of concentration alone does not reliably indicate the level of competition in an industry. It is only one of a series of indicators that may be used when analyzing competition and is a more appropriate metric in some industries than others. In particular, industry concentration is a more relevant measure of competitiveness in markets where barriers to entry enable large firms to increase equilibrium prices by restricting the quantity supplied.<sup>275</sup> As the last three years have shown, new competitors in the U.S. equity markets have captured significant trading volume and have imposed strong competitive pressure on the primary listing exchanges. Indeed, the NYSE – the exchange with the highest market share in its listed stocks in November 2005 – has seen its share of trading in those stocks drop from 79.1% to 30.6%.<sup>276</sup> This is hardly evidence

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<sup>274</sup> See also Comments of the United States Department of Justice, Review of the Regulatory Structure Associated with Financial Institutions, Section III.C. (Jan. 31, 2008) (available at <http://www.usdoj.gov/atr/public/comments/229911.htm>) (“This structure [of the equity markets] – and its regulatory overlay – permits multiple exchanges and electronic trading venues to offer the same or equivalent instruments. There is significant competition among multiple equity trading venues, with low execution fees, narrow spreads, and widespread system innovation – all to the benefit of consumers.”); Nasdaq III at 3.

<sup>275</sup> See, e.g., Jean Tirole, The Theory of Industrial Organization 209-221 (1998).

<sup>276</sup> See note 207 above and accompanying text. The SLCG Study and Evans Report asserted that the Draft Order failed to consider the effect of competition at the individual stock level, noting, for example, that Nasdaq’s market share in Nasdaq-listed stocks is higher than for other stocks. SLCG Study at 11; Evans Report at 7. The Draft Order did, in fact, consider the market share of NYSE Arca in various categories of stocks, as well as the NYSE in NYSE-listed stocks. See 73 FR at 32673. Moreover, as noted in Table 1 above, no exchange (or even NYSE and NYSE Arca combined) currently executes more than 45% of the volume in its listed stocks. The relatively small variations in market share across different stocks are consistent with the Commission’s finding that the exchanges are subject to significant competitive forces, particularly given the ready portability

of network externalities that “are such powerful forces that listing exchanges are able to survive as natural monopolies.”<sup>277</sup>

The U.S. equity markets are characterized by other key features that contribute to a competitive outcome regardless of concentration levels. One is the ability of firms quickly to expand their order and trade processing capacity. As a result, capacity constraints play at best a minor role in the way that firms compete for order flow, and competition is driven primarily by pricing strategies rather than quantity choice. A well established principle of industrial organization literature is that industries in which price is the main strategic choice show more competitive outcomes.<sup>278</sup> Another characteristic of the U.S. equity markets that promotes competition is low switching costs.<sup>279</sup> Market participants can easily switch their order flow from one market to another. Indeed, they can participate in many markets at the same time and simultaneously offer and take liquidity from multiple limit order books. Finally, promoting competition is an integral element of the regulatory structure of the U.S. equity markets. The Commission has adopted numerous regulations over the past decade, including Regulation ATS, the Order

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of order flow from one exchange to another (as well evidenced by the decline in the NYSE’s market share in its listed stocks). Any attempt by an exchange to capitalize on its market share in one stock or group of stocks by acting unreasonably with respect to its customers is likely to drive that order flow away and soon end whatever “dominance” the exchange once had.

<sup>277</sup> SLCG Study at 19. See Ordoover/Bamberger Statement at 15 (“HHI analysis can be unreliable when the shares of firms in the market can change rapidly (i.e., competition can be vigorous and intense even in markets in which measured HHI is high if firms can rapidly gain or lose share.”).

<sup>278</sup> See, e.g., Tirole, note 275 above, at 307-314.

<sup>279</sup> See, e.g., Paul Klemperer, “Markets with Consumer Switching Costs,” Q. J. Econ. 375-394 (1987).

Handling Rules, and Regulation NMS, that have enabled smaller markets to compete with larger markets and made it much more difficult for large exchanges to retain market share should they attempt to exert market power. In sum, the U.S. equity markets have the hallmarks of an industry in which concentration is not a very informative measure of the level of competition.

The calculations in the SLCG Study also grossly overstate the level of concentration in the U.S. equity markets. First, for Nasdaq, the SLCG Study combines the volume of trades actually executed by Nasdaq – its “matched” volume – with volume that is executed by non-exchange trading venues and merely reported to the joint FINRA/Nasdaq TRF. The non-exchange trades do not reflect liquidity in Nasdaq or in its depth-of-book data. In June 2008, for example, Nasdaq reported 42.7% matched volume in Nasdaq-listed stocks, while the Nasdaq/FINFA TRF reported 23.3% volume in Nasdaq-listed stocks.<sup>280</sup> The SLCG Study thereby erroneously inflated Nasdaq’s market share by more than 50%.

Second, the SLCG statistics combine volume for NYSE and NYSE Arca, even though they operate separate liquidity pools. As discussed below,<sup>281</sup> the Exchange Act precludes anti-competitive tying of the liquidity pools of separately registered national

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<sup>280</sup> Source: [www.nasdaqtrader.com](http://www.nasdaqtrader.com). See also Nasdaq III at 1-2. SLCG II notes that Nasdaq itself defines “total market share” to include TRF trades. SLCG II at 4. Nasdaq’s Form 10-K, however, specifically distinguishes between “matched market share” and “total market share” and defines matched market share to include only transactions that are executed on Nasdaq’s systems. See Nasdaq, Form 10-K for period ending December 31, 2007 (filed February 25, 2008), at 44-45. Transactions executed by entities other than Nasdaq and merely reported to the joint FINRA/Nasdaq TRF are irrelevant when assessing Nasdaq’s share of liquidity.

<sup>281</sup> Note 309 below and accompanying text.

securities exchanges even if they are under common control. Accordingly, their separate liquidity pools eliminate any network externalities between NYSE and NYSE Arca and undercut much of the SLCG analysis of market concentration. The SLCG Study does not address how network externalities could apply across separate, untied, liquidity pools.

Even if the reported market shares of NYSE and NYSE Arca are combined, however, it would not change the Commission’s conclusion that NYSE Arca faced significant competitive forces in setting the terms for the ArcaBook data. The combined market share of NYSE and NYSE Arca in NYSE-listed stocks in June 2008 was 44.6%, down from 53.6% in December 2007, and comparable to the 42.7% market share of Nasdaq in Nasdaq-listed stocks in June 2008.<sup>282</sup>

The third problem with the SLCG Study’s calculation of market concentration is that it fails to examine the quotes of venues other than NYSE, NYSE Arca, and Nasdaq when measuring displayed liquidity – particularly the quotes of BATS and Direct Edge, which are the fourth and fifth largest equity trading centers in the U.S. Both ECNs display their best quotes in the core data feeds through either the International Securities Exchange (“ISE”) or National Stock Exchange (“NSX”) and offer their depth-of-book data directly to customers without charge. BATS also makes depth-of-book data available to the public without charge on its Internet web site.

The displayed liquidity of venues other than the primary listing exchanges is quite substantial, resulting in displayed liquidity concentration that is much less than reported trading volume concentration. For example, on July 31, 2008, the best displayed

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<sup>282</sup> See Table 1, note 210 above and accompanying text.

quotations in the core data feeds for the six stocks analyzed in the SLCG Report were as follows:<sup>283</sup>

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<sup>283</sup> Source: ArcaVision (available at [www.arcavision.com](http://www.arcavision.com)). The data combines bids and offers to determine size and percentage of time at the NBBO. For example, if an exchange always quoted at both the national best bid and the national best offer for 500 shares, its size would be 1000 shares and its percentage would be 100.

<b>Table 2</b>					
<b>Exchange Quotation Comparison</b>					
<b>Share Size (% of time at NBBO)</b>					
	<b>NYSE</b>	<b>NYSE Arca</b>	<b>Nasdaq</b>	<b>ISE</b>	<b>NSX</b>
<b>C</b>	2,199 (81%)	5,933 (89%)	8,069 (93%)	4,821 (88%)	3,948 (72%)
<b>GE</b>	2,848 (87%)	5,728 (92%)	8,594 (95%)	4,829 (91%)	3,199 (85%)
<b>XOM</b>	883 (49%)	606 (77%)	941 (75%)	470 (63%)	576 (22%)
<b>AAPL</b>	NA	250 (52%)	307 (57%)	473 (0.4%)	332 (63%)
<b>GOOG</b>	NA	212 (46%)	194 (48%)	127 (0.1%)	202 (49%)
<b>MSFT</b>	NA	8,149 (95%)	18,311 (97%)	3,848 (8%)	10,822 (95%)

The liquidity offered by the ECNs also is substantial at their depth-of-book prices outside the best prices that are included in the core data feeds. For example, snapshots of BATS depth-of-book data on July 31, 2008 reflect the following liquidity available at its best prices and within four cents away from its best prices:<sup>284</sup>

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<sup>284</sup> Source: BATS (snapshots taken from [www.batstrading.com](http://www.batstrading.com) at approximately 11:53 AM on July 31, 2008).

<b>Table 3 BATS Order Book Liquidity July 31, 2008</b>		
	<b>Shares at Best Prices</b>	<b>Shares Within Four Cents</b>
<b>C</b>	12,950	39,036
<b>GE</b>	8,438	37,176
<b>XOM</b>	800	1500
<b>AAPL</b>	400	2100
<b>GOOG</b>	300	0
<b>MSFT</b>	16,200	60,876

The SLCG Study erroneously calculated the concentration of displayed liquidity by extrapolating from the reported trading volume of BATS and Direct Edge rather than directly examining their quoted liquidity.<sup>285</sup> It thereby missed an essential aspect of assessing liquidity in the current equity markets.

For its part, the Evans Report recognizes the exceptionally strong competition for order flow that characterizes the U.S. equities markets. Indeed, it describes the ongoing price war in transaction fees and rebates among equity trading centers in their efforts to attract order flow. The Evans Report concludes, however, that exchanges are impervious to their compelling need to attract order flow when it comes to setting the terms for their

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<sup>285</sup> SLCG Study at 46. The SLCG Study also measured all liquidity between the reported high and low price for the trading day (*id.* at 43), which at any particular time will include liquidity far away from the inside prices that is of little value to traders.

depth-of-book order data. It finds that the relationship between order flow competition and depth-of-book data “is neither strong nor direct.”<sup>286</sup>

To support this conclusion, the Evans Report asserts that transaction fees and rebates are directly related to order flow competition, while data fees are not.<sup>287</sup> As noted in the Draft Order, however, the Exchange Act precludes exchanges from adopting terms for data distribution that unfairly discriminate by favoring participants in an exchange’s market or penalizing participants in other markets.<sup>288</sup> Accordingly, the fact that exchanges do not directly link their data fees to order flow providers sheds no light on whether order flow and market data competition are related.

The direct connection between order flow and data competition is based on “but-for” causation – if an exchange does not compete successfully for order flow from its customers (in part with market data), it will not generate transactions (or transaction fees) and will have no market data to sell. The two types of competition therefore are

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<sup>286</sup> Evans Report at 13. One commenter asserted that exchanges do not have an incentive to keep market data fees low because they rebate market data fees to attract order flow. STA Letter at 3; see also Evans II at 12. Exchange rebates of market data fees, however, relate to core data fees, not to the non-core data fees that are the subject of this filing. Moreover, the exchange rebates of core data fees apply primarily to trades that are reported to one of the trade reporting facilities jointly operated by FINRA and different exchanges. These trades are executed in the OTC market, not on the exchanges. The exchanges compete to attract reports of these trades by rebating core market data revenues to the entity that actually executed the trade. Consequently, the market data fee rebates result in revenues flowing through the exchanges to the OTC entities that provided the price discovery.

<sup>287</sup> Evans Report at 15-16.

<sup>288</sup> 73 FR at 32762, 32768. See also Ordoover/Bamberger Statement at 17 (“The Commission’s proscription of ‘discriminatory’ fees for market data would constrain any attempt by NYSE Arca or Nasdaq to price discriminate between different types of customers (i.e., charge higher prices to customers with relatively inelastic demand for non-core data.”).

integrally connected in the dynamic process of operating a securities exchange. This connection pressures exchanges not to take any action with respect to market data that might jeopardize its position in the competition for order flow. To do otherwise would jeopardize the exchange's own lifeline.

Charging unreasonably high fees for depth-of-book data would jeopardize an exchange's order flow in two respects. First, wide dissemination of an exchange's data is an important tool to attract order flow.<sup>289</sup> The Draft Order cited the instructive real-world example when Island ECN stopped displaying its order book and promptly lost 50% of its market share.<sup>290</sup> The Evans Report concedes that "a viable trading venue must make some of its market data available,"<sup>291</sup> but nevertheless asserts that this competitive force does not affect the terms on which an exchange must make data available to its customers. An exchange competing to attract customers is unlikely to be as sanguine about the effects of an attempt to charge these customers unreasonably high fees for its data.<sup>292</sup>

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<sup>289</sup> See Thomson Reuters Letter at 3 ("Given the competitive market for order flow and trade execution, we agree that 'an exchange generally will have strong competitive reasons to price its depth-of-book order data so that it will be distributed widely to those most likely to use it to trade.'") (quoting Draft Order).

<sup>290</sup> 73 FR at 32764.

<sup>291</sup> Evans Report at 19. Evans II also states that it "does not assume that no relationship whatsoever exists between the pricing of depth-of-book data and the volume of order flow." Evans II at 11. n. 28. For the reasons discussed in this Order, the Commission agrees that there is such a relationship. The Evans analysis appears to disagree primarily about the strength of that relationship and the extent to which it significantly constrains the exchanges in pricing their depth-of-book data.

<sup>292</sup> See Ordoover/Bamberger Statement at 9 ("large shifts in trading volume indicate that traders can, and do, quickly move their orders from one exchange to another").

Second, as noted in the Draft Order,<sup>293</sup> the exchange must market its data products to many of the same customers to which it must appeal for order flow. This integral connection between order flow and data competition is strikingly highlighted by the language of the Evans Report itself: “[A]n exchange with substantial liquidity maintains significant leverage over the consumers of its depth-of-book data. That dynamic – significant leverage over market data customers and little or no leverage over providers and takers of liquidity – results in prices for market data that reflect significant market power and prices for order flow that reflect competitive conditions.”<sup>294</sup> This is a purely theoretical distinction between customers that does not exist in the real world in which exchanges must compete. Exchanges must grapple with the competitive pressures of marketing their data services to many of the same customers to whom they are marketing their transaction services.

b. Substitutes for Depth-of-Book Data

The two economic assessments conclude that none of the alternatives for an exchange’s depth-of-book data noted in the Draft Order – core data, depth-of-book data from other trading centers, pinging for liquidity, and the threat of independent distribution of non-core data by broker-dealers – significantly constrain the pricing of the exchange’s depth-of-book data. The Evans Report, for example, focuses on the unique nature of a particular exchange’s data and asks whether there are any substitutes that replicate the exchange’s “unique” data.<sup>295</sup> This focus is too narrow, however, and fails

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<sup>293</sup> 73 FR at 32764.

<sup>294</sup> Evans Report at 17-18.

<sup>295</sup> Evans Report at 6-7. Evans II repeats this analysis. Evans II at 6. The relevant issue, however, is not whether the content of one exchange’s data is a perfect

capture the bigger picture of what traders need when they assess liquidity in a stock and of where an exchange's depth-of-book data fits into this picture.<sup>296</sup>

The starting point in assessing the value of liquidity information is to recognize that price matters a great deal to traders. The more aggressive the price of a bid or offer at a particular size, the more valuable the information is to traders. Conversely, the less aggressive the price of a bid or offer, the less valuable the information is to traders. An exchange's depth-of-book data reflects displayed liquidity at prices inferior to the quoted NBBO. The value of the exchange's depth-of-book data therefore does not include: (1) undisplayed liquidity at prices better than the NBBO (available at exchanges, ECNs, non-exchange liquidity pools, and OTC market makers), which can be accessed by pinging orders and can be tracked (and thereby usefully predicted) by comparing an exchange's trade reports with its best quotes, both of which are found in core data; (2) displayed liquidity at the NBBO, which is provided by the best quotes in core data; (3) undisplayed

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substitute for another exchange's data. The issue is whether, given all of the available sources of information for assessing liquidity and trading in today's highly automated and competitive market structure (which includes both quoting markets and many dark pools), an exchange's depth-of-book data is so critically important that the exchange is not significantly constrained by competitive forces in pricing that data. For the reasons discussed in this Order, the Commission finds that NYSE Arca was significantly constrained by competitive forces when it priced its depth-of-book data at approximately \$1.50 per trading day for market professionals.

<sup>296</sup> See Ordoover/Bamberger Statement at 7 (“[T]he amount of available liquidity in depth-of-book data at prices different from the current [NBBO] is only a fraction of the liquidity that would be available at any particular price if the market-clearing price changed. For this reason, the percentage of trading in one or more stocks accounted for by any particular exchange overstates the relative importance of depth-of-book market data from that exchange for identifying liquidity that would be available at prices other than the current NBBO.”).

liquidity at the NBBO, which, as with undisplayed liquidity inside the NBBO, can be accessed by pinging orders and usefully predicted with core data.

The reason why these alternative sources of liquidity information are so valuable is that traders in today's markets almost always prefer to trade at the current NBBO or better, rather than accepting the inferior prices reflected in an exchange's depth-of-book data. Because traders naturally prefer to trade at these better prices, an overwhelming majority of trades on an exchange are executed at prices superior to the prices available in the exchange's depth-of-book data. For example, the exchanges' public reports on order execution quality under Rule 605 show that the following percentages of executed share volume of marketable orders were at prices equal to or better than the NBBO in May 2008: Nasdaq – 97%, NYSE Arca – 92%, and NYSE – 90%.<sup>297</sup> Notably, these percentages remain steady even as order sizes increase from 100 shares to 9999 shares. Stated another way, more than 90% of the time, traders do not access the liquidity displayed in an exchange's depth-of-book order data, even for large orders.

Given the inferiority of depth-of-book prices, the competitive constraints faced by an exchange in marketing its depth-of-book data to professional traders becomes more understandable. The data is useful primarily as background information on liquidity outside the best prices, but professional traders are able to use core data and pinging orders to assess liquidity and trade effectively at better prices. Moreover, an exchange that attempted to charge unreasonably high fees for its depth-of-book data also would have to consider the actions that many data users might take to avoid paying the

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<sup>297</sup> Source: Rule 605 reports for May 2008 of NYSE and NYSE Arca (available at [www.nyse.com](http://www.nyse.com)) and Nasdaq (available at [www.nasdaqtrader.com](http://www.nasdaqtrader.com)). Rule 605 reports cover orders with sizes up to 9999 shares. The average trade size for U.S.-listed stocks currently is less than 300 shares.

exchange's high fees. One potential alternative would be for firms to "piggyback" on the services of another firm that had purchased the data, rather than paying the data fee themselves. For example, buy-side institutions could use the algorithmic order routing services of a broker that had purchased an exchange's depth-of-book data, rather than buying the exchange's data and routing orders themselves. The availability of such alternatives increases the elasticity of demand for an exchange's depth-of-book data.

The information preferences of securities professionals are strongly evidenced by the data they currently choose to purchase. As noted in the Draft Order, Nasdaq offers its depth-of-book data product for all U.S.-listed stocks for \$76 per month, or approximately \$3.50 per trading day. Of the 420,000 professional users who purchase core data in Nasdaq-listed stocks, only 19,000 professional users purchase Nasdaq's depth-of-book data product. The Evans Report attempts to dismiss this fact by claiming that Nasdaq is a "monopolist" that has "set prices above competitive levels so that only those that value its product highly will purchase the product."<sup>298</sup> Yet Nasdaq has priced its depth-of-book product at a level that is not much more than the price of a cup of coffee per trading day. Nasdaq's pricing decision is much more consistent with the view that Nasdaq faces

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<sup>298</sup> Evans Report at 8 n. 24. The Evans Report also incorrectly cites revenue figures from Nasdaq's 2007 Form 10-K for the proposition that Nasdaq "was able to extract more than 50% of its 2007 market data revenue from its sale of unconsolidated data." *Id.* at 17. This analysis overlooks that Nasdaq separately reports its consolidated data revenues from non-Nasdaq-listed stocks (known as Network A and Network B stocks) under a heading called "Execution and trade reporting revenues." Nasdaq did not disclose the specific amount of its consolidated data revenues from Network A and Network B stocks in 2007, but they were substantial. For example, the total core data revenues allocated to SROs in 2004 were \$155 million for Network A stocks and \$100 million in Network B stocks (Regulation NMS Release, 70 FR at 37558). As shown in Table 1 above, Nasdaq currently has a 23.9% share of trading in Network A stocks, and its share of trading in Network B stocks is higher.

significant competitive pressures in attempting to market its depth-of-book data product to the approximately 400,000 securities professionals that currently purchase only core data, than the Evans Report view that Nasdaq is a monopolist coercing the 19,000 securities professionals who are willing to pay \$3.50 for Nasdaq's "unique" data.<sup>299</sup>

In sum, depth-of-book data is most accurately characterized as useful, but not essential, for professional traders. NYSE Arca has priced the ArcaBook data for all U.S.-listed stocks at approximately \$1.50 per trading day for professional users. The Commission believes that this pricing decision cannot reasonably be interpreted as that of a monopolist able to take advantage of its market power over a small group of professionals who value the data highly, but rather that of an exchange facing significant competitive pressures in attempting to sell its data to a large number of professionals.

The Draft Order also noted the opportunity for new entrants to the market for non-core data, specifically noting a comparable initiative in Europe by a number of major securities firms.<sup>300</sup> The Evans Report asserts a myriad of theoretical obstacles to

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<sup>299</sup> Nasdaq has priced its depth-of-book data for NYSE-listed stocks at \$6 per month, or approximately 27 cents per trading day. The SLCG uses this exceptionally low fee as a basis to assert that Nasdaq's \$3.50 fee for Nasdaq-listed stocks is "1,100 higher" and evidence of pricing power for Nasdaq-listed stocks. SLCG Study at 31. Yet Nasdaq's share of trading in NYSE-listed stocks is a very substantial 23%. Rather than directly reflecting the value of the data, Nasdaq's extremely low fee for NYSE-listed stocks more likely evidences Nasdaq's intense efforts to compete for order flow in NYSE-listed stocks.

<sup>300</sup> 73 FR at 32765. SIFMA X repeatedly claims that the proposed NYSE Arca fees are "excessive," yet also notes that the London Stock Exchange fee for depth-of-book data is £157.5 per month for non-members. SIFMA X at 9. This fee is many times higher than the proposed NYSE Arca fees that would total \$30 per month for both members and non-members (based on a pound/dollar conversion ratio of 1.502 on November 25, 2008, the London Stock Exchange fee converts to \$236.74 per month). Indeed, the London Stock Exchange fee is much higher than the fee for any exchange depth-of-book data product in the U.S., despite the much greater trading volume and market capitalization of U.S.-listed stocks. The lower

securities firms sponsoring a non-core data initiative in the U.S.<sup>301</sup> As noted above, however, securities firms already have sponsored new equity trading entrants in the U.S., and DOJ – one of the U.S. antitrust authorities – cited the existence of these new entrants as support for its finding that the equity exchange markets are competitive.<sup>302</sup> If securities firms truly believe that exchanges are attempting to charge unreasonably high prices for their depth-of-book data, participating in an initiative to offer a competing source of data is a live option. Indeed, Thomson Reuters noted in its comment on the Draft Order that the ability of broker-dealers to distribute their own data “is an undeveloped but important potential source of market data” and that it is “prepared to work with the broker-dealer community to explore opportunities in the area.”<sup>303</sup>

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data fees charged by U.S. exchanges is yet one more fact evidencing the significant competitive forces faced by U.S. exchanges in setting fees for their depth-of-book data products.

<sup>301</sup> Evans Study at 10-12. SIFMA asserted that the European example is not applicable in the U.S. because European firms are not required to give their data to exchanges for free. SIFMA IX at 21 n. 69. As discussed in the Draft Order (73 FR at 32766), however, U.S. firms are not required to provide the great majority of their orders to any exchange and, for the balance, have a choice among exchanges and FINRA. Moreover, if U.S. firms provided their non-core data without charge to a new data enterprise, it is not clear why the new enterprise would operate at a competitive disadvantage to the exchanges in distributing an alternative data product.

<sup>302</sup> See note 274 above and accompanying text.

<sup>303</sup> Thomson Reuters Letter at 3. SIFMA X asserts that broker-dealers would be unable to create a competitive depth-of-book data product in the U.S. because, it claims, they are required to provide their data to the exchanges. SIFMA X at 9. As discussed above (text accompanying notes 236-240), the great majority of a broker-dealer’s orders need not be provided to any SRO (whether an exchange or FINRA), and the small subset of a broker-dealer’s displayable customer orders that must be provided to an SRO can be provided to FINRA, rather than an exchange.

Finally, with respect to retail investors, the SLCG Study asserts that almost 40% of their orders are for sizes greater than the displayed size at the NBBO when presented.<sup>304</sup> It then presumes, without discussion, that these orders are executed at prices inferior to the NBBO and that retail investors need depth-of-book data to “see the price they are likely to receive for almost 40% of their orders.”<sup>305</sup> This analysis evidences a profound misunderstanding of how retail orders are handled in today’s equity markets. In particular, the SLCG Study fails to consider the very substantial availability of undisplayed liquidity for executing retail orders at non-exchange venues, particularly OTC market makers and liquidity pools sponsored by broker-dealers. This undisplayed liquidity enables retail investors to receive executions for most of their orders at prices equal to or better than the NBBO, regardless of the displayed size at the NBBO.<sup>306</sup>

For example, Schwab’s public disclosures concerning its order routing practices and order execution quality provide an instructive picture of how a broker-dealer with a substantial number of retail customers handles their orders in today’s equity markets.<sup>307</sup> Schwab’s Rule 606 report on order routing for the quarter ending June 30, 2008 reveals that 93% of its customer orders in U.S.-listed equities were “non-directed” – that is, the customer relied on Schwab to determine where to route the order. Schwab routed 94% of these customer orders to non-exchange trading venues, rendering it unlikely that either Schwab or its customers relied on any exchange’s depth-of-book data in making the

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<sup>304</sup> SLCG Study at 20-21.

<sup>305</sup> SLCG Study at 21.

<sup>306</sup> 73 FR at 32770.

<sup>307</sup> Schwab’s disclosures are available at [www.schwab.com](http://www.schwab.com).

routing determination for these orders.<sup>308</sup> In addition, Schwab represents that 57.2% of shares in listed stocks and 61.3% of shares in Nasdaq stocks receive price improvement (an execution price better than the NBBO), and that the ratio of effective spreads to quoted spreads for customer orders is 96.5% in listed stocks and 94.7% in Nasdaq stocks (that is, customers receive prices on average that are better than the NBBO). In sum, undisplayed liquidity at non-exchange trading centers enabled Schwab customers to receive executions for their orders at much superior prices than would be indicated by any exchange's depth-of-book data. The inferior prices reflected in such data would provide a very poor basis indeed to assess whether these retail orders received best execution.

c. Efficacy of Regulatory Alternatives

A third weakness in the SLCG Study and the Evans Report is their failure to acknowledge the extent to which the current Exchange Act regulatory structure effectively promotes competition among the U.S. equity markets. They nevertheless suggest regulatory approaches that would be extraordinarily costly and difficult to implement and that would offer little chance of achieving a more efficient outcome than the market-based approach set forth in the Draft Order.

For example, both the SLCG Study and the Evans Report assert that the market shares of NYSE and NYSE Arca should be combined for purposes of analyzing market power over depth-of-book data, even though they are separately registered as national securities exchanges and operate separate liquidity pools with separate data products and

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<sup>308</sup> See Nasdaq III at 4 (“Rule 606 data from the second quarter of 2008 shows that a sample of major broker-dealers routed just 15% of retail orders in NASDAQ-listed stocks to an exchange.”).

fees. The two economic assessments note that, because NYSE and NYSE Arca are under common control, they will have an incentive to coordinate their pricing and not compete with one another.

Exchanges under common control clearly have incentives to avoid competing with each other. Each national securities exchange, however, is subject to a comprehensive regulatory structure that is designed to address anti-competitive practices. This regulatory structure limits the potential for related exchanges to act jointly in ways that would inappropriately inhibit competition by other exchanges and trading centers with each related exchange. Section 6 of the Exchange Act requires that the rules of a national securities exchange be designed to promote a free and open market. Moreover, it prohibits a national securities exchange from adopting rules that are designed to permit unfair discrimination among its customers or that would impose an unnecessary or inappropriate burden on competition. All of these requirements are applied at the level of the individual registered securities exchange, not at the group level of exchanges that are under common control. In particular, a proposed exchange rule must stand or fall based, among other things, on the interests of customers, issuers, broker-dealers, and other persons using the facilities of that exchange. In sum, an economic analysis of jointly-controlled corporate behavior that might apply to other less regulated industries is inapplicable to equity exchanges that are subject to the pro-competitive Exchange Act regulatory structure.

For example, Section 6 and Exchange Act Rule 603(a) require NYSE Arca to distribute the ArcaBook data on terms that are not tied to other products in a way that is unfairly discriminatory or anticompetitive. Apparently unaware of these regulatory

requirements, the SLCG Study claims that the Commission “does not consider the prospect of the NYSE exercising monopoly pricing power through tying arrangements” and notes that “the NYSE has the clear incentive to force users of a product in which an exchange has monopoly pricing power to also pay for a product in which the exchange does not have monopoly pricing power.”<sup>309</sup> The SLCG concerns may be applicable to firms that operate in unregulated markets, but are inapplicable to U.S. equity exchanges.

The effect of the U.S. regulatory structure is apparent when examining the respective fees for ArcaBook data and NYSE OpenBook data for NYSE-listed stocks. The Evans Report asserts that these products should not be considered as alternatives for one another, but does not address why this conclusion is valid from the standpoint of individual users of data when their use of the two products is not tied in any way. Customers are free to purchase both, either, or neither. Each product must stand or fall on its own merits. The Evans Report asserts that the revenues of both products will be retained by the same corporate entity, yet this point is irrelevant from the standpoint of customers who might be looking for data alternatives. Indeed, if customers decide that ArcaBook is a better bargain than OpenBook, a shift between the two products would lead to a \$45 per month per customer reduction in revenues for NYSE Euronext. If customers believe that ArcaBook data is overpriced at \$15, they can purchase OpenBook alone and NYSE Euronext will have foregone an opportunity to earn greater revenues by setting a lower fee for ArcaBook data.

Although the SLCG Study and Evans Report fail to acknowledge the pro-competitive aspects of the Exchange Act regulatory structure, they nevertheless suggest

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<sup>309</sup> SLCG Study at 32.

alternative regulatory approaches that would be extraordinarily intrusive on competitive forces, as well as quite costly and difficult to apply in practice. For example, the Evans Report criticizes the Draft Order for not addressing whether an exchange could profitably increase the price of its depth-of-book data by 5-10 percent above a “competitive” level,<sup>310</sup> but offers no practical guidance for determining this hypothetical competitive level. Elsewhere, its author has noted that “it seems obvious that the ability of competition authorities and courts (or indeed of any economist) to distinguish between efficient (fair) and inefficient (unfair) prices in practice is very low.”<sup>311</sup>

For its part, the SLCG Study notes that “obtaining accurate and precise data on the marginal costs of producing a particular good or service (e.g., securities market data) is extremely difficult,” but nevertheless asserts that “there are reasonable alternatives for assessing levels and trends of marginal costs.”<sup>312</sup> This statement ignores a whole host of difficulties in calculating the direct costs and common costs of market data – an endeavor that the Commission discussed at length in 1999 and will not repeat here.<sup>313</sup> Moreover,

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<sup>310</sup> Evans Report at 4.

<sup>311</sup> David S. Evans & A. Jorge Padilla, “Excessive Prices: Using Economics to Define Administrable Legal Rules, 1 *J. Competition L. & Econ.* 97, 118 (March 2005) (“Evans Article”); see also *id.* at 99 (“no pricing rule or benchmark can be used to distinguish effectively (i.e., without error) between competitive and excessive prices in practice”).

<sup>312</sup> SLCG Study at 26. SIFMA X asserts that there are numerous choices for reviewing market data fees other than a strict cost-based analysis, but then outlines an approach that would require specialized teams of staff members and administrative hearings to adjudicate an unspecified “relationship” of a proposed fee to exchange costs. SIFMA X at 11.

<sup>313</sup> Market Data Release, 64 FR at 70627-70630. See Ordovery/Bamberger Statement at 3 n. 4 (“It is widely accepted that there is no meaningful way to allocate ‘common costs’ across different joint products. For this reason, ‘cost-based’

the SLCG Study assumes, without discussion, that marginal costs would be the efficiency-enhancing standard to assess fees for depth-of-book data. Elsewhere, however, the author of the Evans Report has noted that in “dynamic industries, where typically fixed costs are high and incremental costs are low, the ‘competitive’ price is not given by marginal costs” and that “it is impossible to define ‘competitive’ prices using only information costs.”<sup>314</sup> The exchange industry is highly dynamic, and exchanges are dependent on their ability to deploy cutting edge technologies. Moreover, the marginal costs of expanding the capacity of trading systems are extraordinarily low – for the most part, a trading center need only add servers and communications lines to its existing hardware and software systems.<sup>315</sup>

In fulfilling its Exchange Act regulatory responsibilities, the Commission is faced with the pragmatic challenge of determining whether non-core market data fees are fair and reasonable. It strongly believes that the current level of competition in the U.S. equity markets provides a much more useful basis to make this determination than a regulatory attempt to measure market data costs. Although the market for distributing

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regulation of the price of market data would require inherently arbitrary cost allocations.”).

<sup>314</sup> Evans Article at 101; see also id. at 99 (“Unfortunately, it is unclear what the appropriate competitive benchmark is in most real-life circumstances and, particularly, in dynamic industries where investment and innovation play a paramount role. Moreover, even if an appropriate benchmark could be defined, it would still remain unclear how one could, on the basis of the information typically available to policy makers and industry analysts, determine with precision whether prices are above, at, or below the competitive benchmark in practice.”).

<sup>315</sup> See Nasdaq III at 4 (“The business of operating a market is typified by low marginal cost for additional volume and markets operating with significant excess capacity”).

depth-of-book data may not meet all of the conditions for theoretically perfect competition, there clearly are significant competitive forces operating in the real world that constrain the exchanges in setting the terms for their data. The Commission therefore has concluded that the market-based approach outlined in the Draft Order is the most appropriate means to meet its regulatory mandate when reviewing non-core data fees.

C. Review of Terms of the Proposal

As discussed in the preceding section, NYSE Arca was subject to significant competitive forces in setting the terms of the Proposal. The Commission therefore will approve the Proposal in the absence of a substantial countervailing basis to find that its terms nevertheless fail to meet an applicable requirement of the Exchange Act or the rules thereunder.<sup>316</sup> An analysis of the Proposal and of the views of commenters does not provide such a basis.

First, the proposed fees for ArcaBook data will apply equally to all professional subscribers and equally to all non-professional subscribers (subject only to the maximum monthly payment for device fees paid by any broker-dealer for non-professional subscribers). The fees therefore do not unreasonably discriminate among types of subscribers, such as by favoring participants in the NYSE Arca market or penalizing participants in other markets.

Second, the proposed fees for the ArcaBook data are substantially less than those charged by other exchanges for depth-of-book order data. For example, the NYSE charges a \$60 per month terminal fee for depth-of-book order data in NYSE-listed stocks.

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<sup>316</sup> The Exchange Act requirements are addressed in the text accompanying notes 171-175 above.

Similarly, Nasdaq charges a \$76 per month device fee for professional subscribers to depth-of-book order data on all NMS stocks. By comparison, the NYSE Arca fee is 75% less than the NYSE fee for data in NYSE-listed stocks, and more than 60% less than the Nasdaq fee for data in all NMS stocks. It is reasonable to conclude that competitive pressures led NYSE Arca to set a substantially lower fee for its depth-of-book order data than the fees charged by other markets. If, in contrast, NYSE Arca were a monopoly data provider impervious to competitive pressures, there would be little reason for it to set significantly lower fees than other exchanges.<sup>317</sup>

Third, NYSE Arca projects that the total revenues generated by the fee for ArcaBook data initially will amount to less than \$8 million per year,<sup>318</sup> and that its market data revenue as a percentage of total revenue is likely to remain close to the 2005 figure, which was approximately 17%.<sup>319</sup> Viewed in the context of NYSE Arca's overall

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<sup>317</sup> See Table 1, note 210 above and accompanying text.

<sup>318</sup> NYSE Arca Response III at 12 n. 28. The reasonableness of this projection is supported by referring to the number of data users that have subscribed to Nasdaq's proprietary depth-of-book product for Nasdaq-listed stocks. Nasdaq reports 19,000 professional users and 12,000 non-professional users as of April 30, 2007. Nasdaq Letter at 6. If the same number of users purchased ArcaBook data for all stocks, the total revenue for NYSE Arca would be \$8,280,000 per year. As noted in Table 1, NYSE Arca has a smaller market share than Nasdaq and therefore may not attract as many subscribers to its depth-of-book product. On the other hand, NYSE Arca is charging substantially less for its data and may attract more users. In the final analysis, market forces will determine the actual revenues generated by NYSE Arca's pricing decision.

<sup>319</sup> NYSE Arca Response III at 12 nn. 28-29. One commenter noted that the market data revenues of the NYSE Group, which includes both NYSE and NYSE Arca, had grown by 33.7% from the third quarter of 2005 to the third quarter of 2006. See section III.A.6 above. Although correct, this figure does not demonstrate any growth in market data revenues because the 2005 figure only included the market data revenues of NYSE, while the 2006 figure included the market data revenues of both the NYSE and NYSE Arca. Using an "apples-to-apples" comparison that

funding, therefore, the fees for ArcaBook data are projected to represent a small portion of NYSE Arca's market data revenues and an even smaller portion of NYSE Arca's total revenues (using NYSE Arca's \$8 million estimate, the fees will amount to less than 12.9% of NYSE Arca's 2005 market data revenues and less than 1.6% of NYSE Arca's 2005 total revenues). In addition, NYSE Arca generated approximately \$415.4 million in revenue from equity securities transaction fees in 2005.<sup>320</sup> These transaction fees are paid by those who voluntarily choose to submit orders to NYSE Arca for execution. The fees therefore are subject to intense competitive pressure because of NYSE Arca's need to attract order flow. In comparison, the \$8 million in projected annual fees for ArcaBook data do not appear to be inequitable, unfair, or unreasonable.

One commenter, although agreeing that exchange transaction fees are subject to intense competitive pressure, asserted that such "intermarket competition does not constrain the exchanges' pricing of market data, but it actually creates an incentive for the exchanges to increase their prices for data."<sup>321</sup> If, however, NYSE Arca were truly able to exercise monopoly power in pricing its non-core data, it likely would not choose a fee that generates only a small fraction of the transaction fees that admittedly are subject to fierce competitive forces. As discussed above, NYSE Arca was indeed subject to significant competitive forces in pricing the ArcaBook data.

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includes both exchanges for both time periods, their combined market data revenues declined slightly from 2005 to 2006. NYSE Arca Response III at 20.

<sup>320</sup> NYSE Group, Inc., Form 10-K for period ending December 31, 2005 (filed March 31, 2006), at 19.

<sup>321</sup> SIFMA V at 14-15.

Several commenters expressed concern that the Proposal would adversely affect market transparency.<sup>322</sup> They noted that NYSE Arca previously had distributed the ArcaBook data without charge and asserted that the new fees could substantially limit the availability of the data. The Petition, for example, stated that “the cumulative impact of [the Proposal] and other pending and recently approved market data proposals threaten to place critical data, which should be available to the general public, altogether beyond the reach of the average retail investor.”<sup>323</sup>

Assuring the wide availability of quotation and trade information is a primary objective of the national market system.<sup>324</sup> With respect to non-professional users, and particularly individual retail investors, the Commission long has sought to assure that retail investors have ready access to the data they need to participate effectively in the equity markets. Indeed, the Commission’s 1999 review of market information was prompted by a concern that retail investors should have ready access to affordable market data through their on-line accounts with broker-dealers. The Concept Release on Market Information noted that, in the course of the 1999 review, the Networks had reduced by up to 80% the fees for non-professional subscribers to obtain core data with the best-priced quotations and most recent last sale prices.<sup>325</sup> It also emphasized the importance of such affordable data for retail investors:

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<sup>322</sup> Financial Services Roundtable Letter at 3; Schwab Letter at 5.

<sup>323</sup> Petition at 3.

<sup>324</sup> Section 11A(a)(1)(C)(iii) of the Exchange Act.

<sup>325</sup> Market Information Concept Release, 64 FR at 70614. Since 1999, the Network data fees applicable to retail investors have either remained the same or been further reduced. Currently, nonprofessional investors can obtain unlimited

One of the most important functions that the Commission can perform for retail investors is to ensure that they have access to the information they need to protect and further their own interests. Communications technology now has progressed to the point that broad access to real-time market information should be an affordable option for most retail investors, as it long has been for professional investors. This information could greatly expand the ability of retail investors to monitor and control their own securities transactions, including the quality of execution of their transactions by broker-dealers. The Commission intends to assure that market information fees applicable to retail investors do not restrict their access to market information, in terms of both number of subscribers and quality of service. In addition, such fees must not be unreasonably discriminatory when compared with the fees charged to professional users of market information.<sup>326</sup>

The Commission appreciates the efforts of the Petitioner and other commenters in advocating the particular needs of users of advertiser-supported Internet Web sites, a great many of whom are likely to be individual retail investors. The Commission believes that the exchanges and other entities that distribute securities market information will find business-justified ways to attend to the needs of individual investors and, as markets evolve, develop innovative products that meet the needs of these users and are affordable in light of the users' economic circumstances. In this respect, it recognizes the exchange initiatives to distribute new types of data products specifically designed to meet the needs of Internet users for reference data on equity prices.<sup>327</sup>

The Commission does not believe, however, that the Proposal will significantly detract from transparency in the equity markets. Of course, any increase in fees can lower the marginal demand for a product. To assess an effect on transparency, however,

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amounts of core data for no more than \$1 per month each for Network A, B, and C stocks. See SIFMA III, Appendix A.

<sup>326</sup> Market Information Concept Release, 64 FR at 70614.

<sup>327</sup> See note 19 above (NYSE Real-Time Reference Prices and Nasdaq Last Sale Data Feeds).

the relevant question is whether the fees for a particular product deter a significant number of market participants from obtaining the market data they need because the fees are not affordable given their economic circumstances.<sup>328</sup> Market transparency does not require that the same products be made available to all users on the same terms and conditions. Such a one-size-fits-all approach would ignore the important differences among data users in terms of both their needs and their economic circumstances. Most importantly, such an approach would fail to address the particular needs of individual retail investors.

With respect to professional data users (i.e., those who earn their living through the markets), the Commission believes that competitive forces, combined with the heightened ability of professional users to advance their own interests, will produce an appropriate level of availability of non-core data. With respect to non-professional users, as well, the Commission believes that the ArcaBook fees will not materially affect their access to the information they need to participate effectively in the equity markets.<sup>329</sup> The ArcaBook data likely is both too narrow and too broad to meet the needs of most retail investors. It likely is too narrow for most retail investors when they make their trading and order-routing decisions. The best prices quoted for a stock in the ArcaBook

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<sup>328</sup> See Market Information Concept Release, 64 FR at 70630 (“[T]he relevant Exchange Act question is whether the fees for particular classes of subscribers, given their economic circumstances and their need for and use of real-time information, are at a sufficiently high level that a significant number of users are deterred from obtaining the information or that the quality of their information services is reduced.”)

<sup>329</sup> See NYSE Arca Response III at 18 (“The overwhelming majority of retail investors are unaffected by the inter-market competition over proprietary depth-of-book products. For them, the consolidated top-of-book data that the markets make available under the NMS Plans provides adequate information on which they can base trading decisions.”).

data reflect only the NYSE Arca market. Other markets may be offering substantially better prices. It is for this reason that Rule 603(c) of Regulation NMS requires broker-dealers and vendors to provide their customers with a consolidated display of core data in the context of trading and order-routing decisions. A consolidated display includes the national best bid and offer for a stock, as well as the most recent last sale for such stock reported at any market. This consolidated display thereby gives retail investors a valuable tool for ascertaining the best prices for a stock.

Two commenters stated that the average retail order is 1000 or more shares and is larger than the size typically reflected in the consolidated quotation in core data.<sup>330</sup> This issue was raised, however, when the Commission was formulating its approach to non-core data in 2005. It noted that the average execution price for small market orders (the order type typically used by retail investors) is very close to, if not better than, the NBBO.<sup>331</sup> In addition, a study by the Commission's Office of Economic Analysis of quoting in 2003 in 3,429 Nasdaq stocks found that the average displayed depth of quotations at the NBBO was 1,833 shares – greater than the size of the average order cited by commenters.<sup>332</sup>

Some commenters suggested that the core data provided by the Networks disadvantaged retail investors because it was not distributed as fast as the depth-of-book

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<sup>330</sup> Schwab Letter at 1-2; SIFMA IV at 14.

<sup>331</sup> Regulation NMS Release, 70 FR at 37567. Most retail investors receive order executions at prices equal to or better than the NBBO that is disseminated in core data. See also Dissent of Commissioners Cynthia A. Glassman and Paul S. Atkins to the Adoption of Regulation NMS, 70 FR 37636 (estimating that between 98% and 99% of all trades did not trade through better-priced bids or offers).

<sup>332</sup> 70 FR at 37511 n. 108.

order data obtained directly from an exchange.<sup>333</sup> The central processors of core data must first obtain data from each SRO and then consolidate it into a single data feed for distribution to the public. While exchanges are prohibited from providing their data to direct recipients any sooner than they provide it to the Network central processor,<sup>334</sup> the additional step of transmitting data to the central processor inevitably means that a direct data feed can be distributed faster to users than the Network data feed. The size of this time latency, however, is extremely small in absolute terms. For example, a technology upgrade by the central processor for Network A and Network B has reduced the latency of the core data feed to approximately 3/100ths of a second.<sup>335</sup> The Commission does not believe that such a small latency under current market conditions disadvantages retail investors in their use of core data, but rather would be most likely relevant only to the most sophisticated and active professional traders with state-of-the-art systems.

Moreover, outside of trading contexts, the ArcaBook data will be far broader than individual investors typically need. The ArcaBook data encompasses all quotations for a stock at many prices that are well away from the current best prices. For retail investors that are not trading but simply need a useful reference price to track the value of their

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<sup>333</sup> Schwab Letter at 4; SIFMA III at 6 n. 11.

<sup>334</sup> Regulation NMS Release, 70 FR at 37567.

<sup>335</sup> NYSE Arca Response III at 21. The upgrade was completed in April 2007. See Securities Industry Automation Corporation, Notice to CTA Recipients, “Reminder Notice – CQS Unix Activation – New Source IP Addresses” (April 27, 2007) (available at [www.nysedata.com](http://www.nysedata.com)). This major upgrade of the CTA data feed runs contrary to the concern of one commenter on the Draft Order that exchanges would have little incentive to maintain the quality of core data. NSX II at 5-6.

portfolio and monitor the market, the enormous volume of data regarding trading interest outside the best prices is not needed.<sup>336</sup>

Some commenters asserted that the Proposal failed to satisfy the requirements of Exchange Act Rule 19b-4 and Form 19b-4.<sup>337</sup> Form 19b-4 requires, among other things, that SROs provide a statement of the purpose of the proposed rule change and its basis under the Exchange Act. The statement must be sufficiently detailed and specific to support a finding that the proposed rule change meets the requirements of the Exchange Act, including that the proposed rule change does not unduly burden competition or efficiency, does not conflict with the securities laws, and is not inconsistent with the public interest or the protection of investors. The NYSE Arca Proposal met these requirements. Among other things, the Proposal noted that the proposed fees compared favorably to the fees that other competing markets charge for similar products, including those of other exchanges that previously had been approved by the Commission.<sup>338</sup>

One commenter argued that NYSE Arca should have addressed a number of specific points that it raised in opposition to the Proposal, such as including a statement

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<sup>336</sup> See NYSE Arca Response II at 2 (“during the first ten months of 2005 the number of messages processed by the Exchanged greatly increased from approximately 9,800 MPS [messages per second] to 14,100 MPS”).

<sup>337</sup> See section III.A.3 above. In their comments on the Draft Order, commenters claimed that it in effect would amend Rule 19b-4 without following required agency rulemaking procedures. NetCoalition V at 7; SIFMA IX at 20. Rule 19b-4, however, merely sets forth requirements for SROs to follow in preparing their proposed rule changes. It does not address the substantive nature of Commission review of proposed rule changes, which necessarily will vary widely depending on the particular issues raised by the SRO proposal.

<sup>338</sup> See Proposal, 71 FR at 33499.

of costs to produce the ArcaBook data.<sup>339</sup> The purpose of Form 19b-4, however, is to elicit information necessary for the public to provide meaningful comment on the proposed rule change and for the Commission to determine whether the proposed rule change is consistent with the requirements of the Exchange Act and the rules thereunder.<sup>340</sup> The Proposal met these objectives. Although Form 19b-4 requires that a proposed rule change be accurate, consistent, and complete, including the information necessary for the Commission’s review, the Form does not require SROs to anticipate and respond in advance to each of the points that commenters may raise in opposition to a proposed rule change. With this Order, the Commission has determined that the points raised by the commenter do not provide a basis to decline to approve the Proposal.

Finally, commenters raised concerns regarding the contract terms that will govern the distribution of ArcaBook data.<sup>341</sup> In particular, one notes that NYSE Arca has not filed its vendor distribution agreement with the Commission for public notice and comment and Commission approval.<sup>342</sup>

NYSE Arca has stated, however, that it plans to use the vendor and subscriber agreements used by CTA and CQ Plan Participants (the “CTA/CQ Vendor and Subscriber Agreements”) to govern the distribution of NYSE Arca Data. According to

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<sup>339</sup> SIFMA III at 11-12.

<sup>340</sup> Section B of the General Instructions for Form 19b-4.

<sup>341</sup> See section III.A.7 above.

<sup>342</sup> SIFMA I at 7. In this regard, the commenter states that, procedurally, the Exchange “is amending and adding to the CTA vendor agreement without first submitting its contractual changes through the CTA’s processes, which are subject to industry input through the new Advisory Committee mandated by Regulation NMS.” SIFMA I at 8.

the Exchange, the CTA/CQ Vendor and Subscriber Agreements “are drafted as generic one-size-fits all agreements and explicitly apply to the receipt and use of certain market data that individual exchanges make available in the same way that they apply to data made available under the CTA and CQ Plans,” and the contracts need not be amended to cause them to govern the receipt and use of the Exchange’s data.<sup>343</sup> The Exchange maintains that because “the terms and conditions of the CTA/CQ contracts do not change in any way with the addition of the Exchange’s market data . . . there are no changes for the industry or Commission to review.”<sup>344</sup>

The Commission believes that the Exchange may use the CTA/CQ Vendor and Subscriber Agreements to govern the distribution of NYSE Arca Data.<sup>345</sup> It notes that the NYSE used the CTA Vendor Agreement to govern the distribution of its OpenBook and Liquidity Quote market data products.<sup>346</sup> Moreover, the Exchange represents that, following consultations with vendors and end-users, and in response to client demand:

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<sup>343</sup> NYSE Arca Response I at 3.

<sup>344</sup> NYSE Arca Response I at 3 (emphasis in original).

<sup>345</sup> The Commission is not approving the CTA/CQ Vendor and Subscriber Agreements, which the CTA and CQ Plan Participants filed with the Commission as amendments to the CTA and CQ Plans that were effective on filing with the Commission pursuant to Rule 608(b)(3)(iii) of Regulation NMS (previously designated as Exchange Act Rule 11Aa3-2(c)(3)(iii)). See, e.g., Securities Exchange Act Release No. 28407 (September 6, 1990), 55 FR 37276 (September 10, 1990) (File No. 4-2811) (notice of filing and immediate effectiveness of amendments to the CTA Plan and the CQ Plan). Rule 608(b)(3)(iii) of Regulation NMS (previously designated as Exchange Act Rule 11Aa3-2(c)(3)(iii)) allows a proposed amendment to a national market system plan to be put into effect upon filing with the Commission if the plan sponsors designate the proposed amendment as involving solely technical or ministerial matters.

<sup>346</sup> Securities Exchange Act Release Nos. 53585 (March 31, 2006), 71 FR 17934 (April 7, 2006) (order approving File Nos. SR-NYSE-2004-43 and NYSE-2005-32) (relating to OpenBook); and 51438 (March 28, 2005), 70 FR 17137 (April 4,

[The Exchange] chose to fold itself into an existing contract and administration system rather than to burden clients with another set of market data agreements and another market data reporting system, both of which would require clients to commit additional legal and technical resources to support the Exchange's data products.<sup>347</sup>

In addition, the Exchange has represented that it is “not imposing restrictions on the use or display of its data beyond those set forth” in the existing CTA/CQ Vendor and Subscriber Agreements.<sup>348</sup> The Commission therefore does not believe that the Exchange is amending or adding to such agreements.

A commenter also stated that the Exchange has not recognized the rights of a broker or dealer, established in Regulation NMS, to distribute its order information, subject to the condition that it does so on terms that are fair and reasonable and not unreasonably discriminatory.<sup>349</sup> In response, the Exchange states that the CTA/CQ Vendor and Subscriber Agreements do not prohibit a broker-dealer member of an SRO participant in a Plan from making available to the public information relating to the orders and transaction reports that it provides to the SRO participant.<sup>350</sup> Accordingly, the Commission believes that the Exchange has acknowledged the rights of a broker or

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2005) (order approving File No. SR-NYSE-2004-32) (relating to Liquidity Quote). For the both the OpenBook and Liquidity Quote products, the NYSE attached to the CTA Vendor Agreement an Exhibit C containing additional terms governing the distribution of those products, which the Commission specifically approved. NYSE Arca is not including additional contract terms in the Proposal.

<sup>347</sup> NYSE Arca Response I at 4.

<sup>348</sup> NYSE Arca Response I at 3.

<sup>349</sup> SIFMA I at 7.

<sup>350</sup> NYSE Arca Response I at 4.

dealer to distribute its market information, subject to the requirements of Rule 603(a) of Regulation NMS.

A commenter also stated that the Exchange has failed to consider the administrative burdens that the proposal would impose, including the need for broker-dealers to develop system controls to track ArcaBook access and usage.<sup>351</sup> In response, the Exchange represents that it has communicated with its customers to ensure system readiness and is using “a long-standing, well-known, broadly-used administrative system” to minimize the amount of development effort required to meet the administrative requirements associated with the proposal.<sup>352</sup> Accordingly, the Commission believes that NYSE Arca has reasonably addressed the administrative requirements associated with the Proposal.

## VII. Conclusion

It is therefore ordered that the earlier action taken by delegated authority, Securities Exchange Act Release No. 54597 (October 12, 2006) 71 FR 62029 (October 20, 2006), is set aside and, pursuant to Section 19(b)(2) of the Exchange Act, the Proposal (SR-NYSEArca-2006-21) is approved.

By the Commission.

Florence E. Harmon  
Acting Secretary

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<sup>351</sup> SIFMA I at 8.

<sup>352</sup> NYSE Arca Response I at 4-5.

