Notice of proposed change pursuant to the Payment, Clearing, and Settlement Act of 2010
Section 806(e)(1) *

Security-Based Swap Submission pursuant to the Securities Exchange Act of 1934
Section 3C(b)(2) *

Exhibit 2 Sent As Paper Document
Exhibit 3 Sent As Paper Document

has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized.

Executive Vice President and General Counsel

Pursuant to the requirements of the Securities Exchange Act of 1934,

NOTE: Clicking the button at right will digitally sign and lock this form. A digital signature is as legally binding as a physical signature, and once signed, this form cannot be changed.
The self-regulatory organization must provide all required information, presented in a clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal is consistent with the Act and applicable rules and regulations under the Act.

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

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

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

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

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

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

   (a) Pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”),¹ and Rule 19b-4 thereunder,² The NASDAQ Stock Market LLC (“Nasdaq” or “Exchange”) is filing with the Securities and Exchange Commission (“SEC” or “Commission”) a proposed rule change to add Nasdaq Rule 7046 (Nasdaq Trading Insights) to the Nasdaq rule book.

   The Exchange has designated that this filing be operative on September 1, 2016 if approved by the SEC.

   (b) Not applicable.

   (c) Not applicable.

2. **Procedures of the Self-Regulatory Organization**

   Board of Directors of the Exchange approved the submission of this proposed rule change on June 13, 2016. No other action by the Exchange is necessary for the filing of the rule change.

   Questions and comments on the proposed rule change may be directed to:

   Jonathan F. Cayne  
   Senior Associate General Counsel  
   Nasdaq, Inc.  
   (301) 978-8493

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

   a. **Purpose**

   The Exchange proposes to add Nasdaq Rule 7046 (Nasdaq Trading Insights) to the Nasdaq rule book. The Nasdaq Trading Insights product is an optional market data service available to market participants for a corresponding fee³ and comprised of four distinct market data components. Specifically, and as described in greater detail below, the market data components include: (a) Missed Opportunity – Liquidity; (b) Missed Opportunity – Latency; (c) Peer Benchmarking; and (d) Liquidity Dynamics Analysis.

   Currently, Nasdaq provides real-time prices and analytics in the marketplace. The Exchange believes that the additional data points from the matching engine outlined below may help market participants to gain a better understanding about their interactions with the Exchange. The four market data components that comprise the Nasdaq Trading Insights product will help market participants by providing them with a chance to learn more about when they may have better opportunities to access liquidity and to receive better execution rates. The proposed market data product will increase transparency and democratize information so that all firms that themselves may not have the expertise to generate such information may elect to subscribe to the Nasdaq Trading Insights product. None of the components are real-time market data products.

   (a) **Missed Opportunity - Liquidity**

   Trading firms may seek to submit orders for the greatest number of shares possible without exceeding the amount of shares actually available. This component

   ³ A separate filing will address the pricing for the Nasdaq Trading Insights product, which also will be implemented on September 1, 2016, if SR-NASDAQ-2016-101, as amended, is approved by the SEC.
identifies when an order from a market participant might have been increased in size and thus executed more shares.4

For example, if a firm sends in an order that was fully executed and subsequently sends another order (or multiple orders) at the same or inferior price-level than originally executed, this indicates that they could have oversizes their original order. This missed opportunity could have resulted in a larger fill which will allow firms to change their trading patterns to trade more efficiently. The Exchange will provide this information to firms on a T + 1 basis. The Missed Opportunity - Liquidity component may also benefit firms by providing greater visibility into exactly what was missed in trading so they may optimize their models and trading patterns to yield better returns.

The data included in this component is unique for each market participant’s port and only that market participant is eligible to receive this data upon voluntarily opting to pay the Nasdaq Trading Insights fee (as previously noted, the Nasdaq Trading Insights fee will be included in a future filing). The Exchange will ensure that each market participant receives only their own unique data and will not be able to obtain any other market participant’s unique data.

Market participants may already be able to derive the same data that is provided by this component based on their executions and algorithms that they have created. As

4 The data elements for this component, in summary, are the: (i) Issue (Nasdaq symbol for the issue); (ii) Buy/Sell Indicator (side of the market at which the market participants are quoting); (iii) Price (the price (inclusive of decimal point) at which Nasdaq Market Center market participants had order interest for the given security at the given time); (iv) Order Reference Number (the unique reference number assigned to the new order at the time of receipt); (v) Order Entry Time Stamp (the time order was received in the system); (vi) Share Quantity (total number of shares submitted on original order); and (vii) Missed Opportunity Quantity (total number of shares missed).
more firms create increasingly sophisticated algorithms, they are able to determine where hidden pockets of liquidity exist. With this component, the Exchange is providing the information necessary for market participants interested in gaining insight into hidden pockets of liquidity and potentially improving their trading performance. For example, if a firm continuously executes against hidden orders and creates a model to potentially identify the amount of hidden liquidity for individual securities at certain time periods, it will be able to essentially recreate this product for itself.

(b) Missed Opportunity – Latency

Market participants generally would use liquidity accessing orders if there is a high probability that it will execute an order resting on the Exchange order book. This component identifies by how much time an order that may have been marketable missed executing.5 As with the Missed Opportunity - Liquidity component described above, this component also will provide greater visibility into exactly what was missed in trading so market participants may optimize their models and trading patterns to yield better execution results. No specific information about resting orders on the Exchange book will be provided.

This component will help market participants to better understand by how much time they missed specific orders, thus determining whether they want to invest in the technology to mitigate the misses. For example, if a market participant sends in a

\[\text{The data elements for this component, in summary, are the: (i) Issue (Nasdaq symbol for the issue); (ii) Buy/Sell Indicator (side of the market at which the market participants are quoting); (iii) Price (the price (inclusive of decimal point) at which Nasdaq Market Center market participants had order interest for the given security at the given time); (iv) Order Reference Number (the unique reference number assigned to the new order at the time of receipt); (v) Order Size; (vi) Matching Engine times for incoming orders; (vii) Missed Opportunity times; and (viii) Reasons for not getting fills.}\]
marketable order, but an order resting on the Exchange order book was subsequently
canceled or executed, the Exchange will let the market participant know for each of these
orders submitted by how much time they missed an execution. The Exchange will
provide this information to firms on a T + 1 basis.

Additionally, the data included in this component will be based only on the data
of the market participant that opts to pay the Nasdaq Trading Insights fee to receive it (as
previously noted, the Nasdaq Trading Insights fee will be included in a future filing).
The Exchange will restrict all other market participants from receiving another market
participant’s data.

(c) Peer Benchmarking

This component ranks the quality of a market participant’s trading performance
against its peers. Market participants will be able to view their own trading activity
broken out by port with each being ranked independently for each metric against their
peers trading with the Exchange. By understanding its ranking and its associated ranking
with peers, market participants will have a better idea of how the competition is
performing vis-à-vis their own trading.

6 The data elements for this component, in summary, include: (i) Total Dollar
Volume; (ii) Total Share Volume, Share Volume of Liquidity Provision and
Accessible for Tape A, Tape B and Tape C; (iii) Number of Trades, including
Hidden Orders and Number of Hidden Trades; (iv) Mean/Median Trade Size; (v)
Mean/Median Size of Hidden Orders; (vi) Number of Buy/Sell Orders Received;
(vii) Number of Aggressive Orders, Mean Size of Aggressive Buy/Sell Orders;
(viii) Number of Passive Orders, Mean Size of Displayed Passive Order, Hidden
Passive for Buy and Sell Orders; (ix) Number of Orders at Best Bid/Ask Level;
(x) Mean Cost to Execute for Buy and Sell for 1000, 5000, 10000 Shares; (xi)
Number of Modified/Cancelled Buy/Sell Orders; (xii) Mean Buy/Sell Price
Range; (xiii) Total Number of Buy/Sell Price; (xiv) Number, Mean – Resting
Buy/Sell Price Points; (xv) Missed Opportunities- Liquidity, Latency; (xvi) Mean
Share Volume Against Hidden, Mean Quote Rotation Time.
Peer Benchmarking will help market participants better understand trending over time and whether behavioral changes they make translate into the expected results. Additionally, this component will assist market participants in understanding their rankings independent of any trading pattern changes the market participant may have made. It will let market participants know what their metric is ranked within their peer group and the market participant can glean how it is changing over time. Each port will be categorized into a peer grouping that will be based upon a given set of metrics that will share similar trading behavior characteristics and must include at least ten peers within a security. The Exchange will provide this information to firms on a T + 1 basis.

The data included in Peer Benchmarking is specific to a particular market participant’s port and only the market participant who pays the optional Nasdaq Trading Insights fee to receive it is eligible to receive Peer Benchmarking. Nasdaq will restrict all other market participants from receiving this market participant’s Peer Benchmark (as previously noted, the Nasdaq Trading Insights fee will be included in a future filing).

(d) Liquidity Dynamics Analysis

This component offers extensive historical insight into aggregated displayed and hidden orders on the Exchange for Reg NMS securities listed on Nasdaq, the New York Stock Exchange, and other U.S. equity exchanges. Specifically, this component will contain aggregated metrics and statistics about the liquidity on Nasdaq, including hidden liquidity on a security level. This will be presented as an FTP file with calculated

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7 The data elements for this component, in summary, are the: (i) Issue (Nasdaq symbol for the issue); (ii) Start Time; (iii) End Time; (iv) Side (identifies buy vs. sell side); (v) Level (level associated with the price); (vi) Average Depth (average depth of the book); (vii) Minimum Depth (minimum depth of the book); (viii) Maximum Depth (maximum depth of the book); (ix) Standard Deviation Depth;
statistics over a time window of 30 seconds, subject to change. The data will be analyzed every 30 seconds starting at 10 minutes prior to the market open and 10 minutes after the market close and it will include all orders that are visible, anonymous or non-displayed for each security. The Exchange will provide this information to firms on a T + 1 basis.

Market participants may opt to utilize this component to better understand when pockets of accessible liquidity exist. This may help market participants optimize their algorithm and Smart Order Router to potentially oversize orders and get better fill rates.

b. Statutory Basis

The Exchange believes that the proposed rule change is consistent with the provisions of Section 6 of the Act,\(^9\) in general and with Sections 6(b)(5) of the Act,\(^10\) in particular in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, 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. This proposal is in keeping with

\[8\] FTP means a File Transfer Protocol, which is a standard network protocol used to transfer computer files between a client and server on a computer network.


those principles in that it promotes increased transparency through the dissemination of
the optional Nasdaq Trading Insights market data product to those interested in paying to
receive the product.

The Exchange also believes this proposal is consistent with Section 6(b)(5) of the
Act because it protects investors and the public interest and promotes just and equitable
principles of trade by providing investors with a new option for receiving market data as
requested by potential purchasers. The proposed rule change would benefit investors by
facilitating their prompt access to the value added information that is included in the
Nasdaq Trading Insights market data product, which includes the following components:
(a) Missed Opportunity – Liquidity; (b) Missed Opportunity – Latency; (c) Peer
Benchmarking; and (d) Liquidity Dynamics Analysis.

In adopting Regulation NMS, the Commission granted self-regulatory
organizations (“SROs”) and broker dealers increased authority and flexibility to offer
new and unique market data to consumers of such data. It was believed that this
authority would expand the amount of data available to users and consumers of such data
and also spur innovation and competition for the provision of market data. The Exchange
believes that the Nasdaq Trading Insights product is the sort of market data product that
the Commission envisioned when it adopted Regulation NMS.

The Commission concluded that Regulation NMS—by deregulating the market in
proprietary data—would itself further the Act’s goals of facilitating efficiency and
competition:

[E]fficiency is promoted when broker-dealers who do not need the data beyond
the prices, sizes, market center identifications of the NBBO and consolidated last
sale information are not required to receive (and pay for) such data. The
Commission also believes that efficiency is promoted when broker-dealers may
choose to receive (and pay for) additional market data based on their own internal analysis of the need for such data.\textsuperscript{11}

By removing “unnecessary regulatory restrictions” on the ability of exchanges to sell their own data, Regulation NMS advanced the goals of the Act and the principles reflected in its legislative history. This proposed new market data product provides investors with a new option for receiving market data, which was a primary goal of the market data amendments adopted by Regulation NMS.\textsuperscript{12}

(a) Missed Opportunity – Liquidity

This component is designed for trading firms that seek to submit orders for the greatest number of shares possible without exceeding the amount of shares actually available. It identifies when an order from a market participant might have been increased in size and thus executed more shares.

The Exchange believes that providing this optional liquidity to interested market participants for a fee is consistent with facilitating transactions in securities, removing impediments to and perfecting the mechanism of a free and open market and a national market system, and, in general, protecting investors and the public interest because it provides greater visibility into exactly what was missed in trading so market participants may optimize their models and trading patterns to yield better execution results by identifying when an order from a market participant might have been increased in size and thus executed more shares.


\textsuperscript{12} See Regulation NMS Adopting Release, supra, at 37503.
(b) **Missed Opportunity – Latency**

This component is designed for market participants that are interested in gaining insight into latency in connection with orders that failed to execute against an order resting on the Exchange order book since it identifies by how much time an order that may have been marketable missed executing.

The Exchange believes that providing this optional latency data to interested market participants for a fee is consistent with facilitating transactions in securities, removing impediments to and perfecting the mechanism of a free and open market and a national market system, and, in general, protecting investors and the public interest because it provides greater visibility into exactly what was missed in trading so market participants may optimize their models and trading patterns to yield better execution results by identifying by how much time an order that may have been marketable missed executing.

(c) **Peer Benchmarking**

This component is designed for market participants that are interested in gaining insight into the quality of its trading performance against its peers trading with the Exchange.

The Exchange believes that providing this optional Peer Benchmarking data to interested market participants for a fee is consistent with facilitating transactions in securities, to removing impediments to and perfecting the mechanism of a free and open market and a national market system, and, in general, protecting investors and the public interest because it provides additional insight for market participants into how the competition is performing vis-à-vis their own trading, as well as helping market
participants better understand trending over time and whether behavioral changes they make translate into the expected results.

(d) **Liquidity Dynamics Analysis**

This component is designed for market participants that are interested in gaining insight into when pockets of accessible liquidity exist. This component may help market participants optimize their algorithm and Smart Order Routers to potentially oversize orders and get better fill rates.

The Exchange believes that providing this optional data concerning historical insight into aggregated displayed and hidden orders on the Exchange for Reg NMS securities listed on Nasdaq, the New York Stock Exchange, and other U.S. equity exchanges, to interested market participants for a fee is consistent with facilitating transactions in securities, removing impediments to and perfecting the mechanism of a free and open market and a national market system, and, in general, protecting investors and the public interest because it provides greater visibility into when pockets of accessible liquidity exist. This, in turn, may help market participants optimize their algorithm and Smart Order Routers to potentially oversize orders and get better fill rates.

In summary, the Nasdaq Trading Insights market data product will help to protect a free and open market by providing additional non-core data (offered on an optional basis for a fee) to the marketplace and by providing investors with greater choices. Additionally, the proposal would not permit unfair discrimination because the Nasdaq Trading Insights product will be available to all of the Exchange’s participants.

13 See Sec. Indus. Fin. Mkts. Ass’n (SIFMA), Initial Decision Release No. 1015, 2016 SEC LEXIS 2278 (ALJ June 1, 2016) (finding the existence of vigorous competition with respect to non-core market data).
4. **Self-Regulatory Organization’s Statement on Burden on Competition**

The Exchange does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act, as amended. In fact, the Exchange believes that the Nasdaq Trading Insights market data product will enhance competition\(^\text{14}\) by providing a new option for receiving market data to market participants, which was a primary goal of the market data amendments adopted by Regulation NMS.\(^\text{15}\)

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

Regulation NMS, by deregulating the market for proprietary data, has increased the contestability of that market. While broker-dealers (“BDs”) have previously published their proprietary data individually, Regulation NMS encourages market data vendors and BDs to produce proprietary products cooperatively in a manner never before possible. Multiple market data vendors already have the capability to aggregate data and disseminate it on a profitable scale, including Bloomberg and Thomson Reuters. In

\(^\text{14}\) Id.

\(^\text{15}\) See Regulation NMS Adopting Release, supra, at 37503.
Europe, Cinnober aggregates and disseminates data from over 40 brokers and multilateral trading facilities.¹⁶

In the case of TRFs, the rapid entry of several exchanges into this space in 2006-2007 following the development and Commission approval of the TRF structure demonstrates the contestability of this aspect of the market.¹⁷ Given the demand for trade reporting services that is itself a by-product of the fierce competition for transaction executions – characterized notably by a proliferation of ATSs and BDs offering internalization – any supra-competitive increase in the fees associated with trade reporting or TRF data would shift trade report volumes from one of the existing TRFs to the other¹⁸ and create incentives for other TRF operators to enter the space. Alternatively, because BDs reporting to TRFs are themselves free to consolidate the market data that they report, the market for over-the-counter data itself, separate and apart from the markets for execution and trade reporting services – is fully contestable.

In this instance, the proposed rule change to offer the optional Nasdaq Trading Insights market data product for a fee is subject to market participant interest. Additionally, some market participants may already be able to derive the same data that is provided by some of the components based on their executions and algorithms that they have created.

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¹⁷ The low cost exit of two TRFs from the market is also evidence of a contestable market, because new entrants are reluctant to enter a market where exit may involve substantial shut-down costs.

¹⁸ It should be noted that the FINRA/NYSE TRF has, in recent weeks, received reports for almost 10% of all over-the-counter volume in NMS stocks.
In sum, if the Nasdaq Trading Insights product that is the subject of the rule change proposed herein is unattractive to market participants, market participants will opt not to purchase it. Accordingly, the Exchange does not believe that the proposed change will impair the ability of members or competing order execution venues to maintain their competitive standing in the financial markets.

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

Written comments were neither solicited nor received.

6. **Extension of Time Period for Commission Action**

Not applicable.

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

The Exchange respectfully requests accelerated effectiveness of this proposed rule change pursuant to Section 19(b)(2) of the Act.\(^\text{19}\) The Exchange believes that there is good cause for the Commission to accelerate effectiveness by September 1, 2016 because the proposed rule change may help market participants to gain a better understanding about their interactions with the Exchange and will increase transparency and democratize information so that all firms that themselves may not have the expertise to generate such information may elect to subscribe to the Nasdaq Trading Insights product.

The Exchange is providing market participants with a new option for receiving market data, in part, in response to requests by potential purchasers. The proposed rule change would benefit participants by facilitating their prompt access to the value added information that is included in the Nasdaq Trading Insights market data product.

The Exchange also believes there is good cause to accelerate effectiveness of this proposed rule change because it will enhance competition by providing a new option for receiving market data to market participants, which was a primary goal of the market data amendments adopted by Regulation NMS.

Within 45 days of the date of publication of this notice in the Federal Register or within such longer period up to 90 days (i) as the Commission may designate if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the Exchange consents, the Commission will

A. by order approve or disapprove such proposed rule change, or

B. institute proceedings to determine whether the proposed rule change should be disapproved.

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

   Not applicable.

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

   Not applicable.

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

    Not applicable.

11. **Exhibits**

    1. Form of Notice of the Proposed Rule Change for the Federal Register.

SECURITIES AND EXCHANGE COMMISSION
(Release No. 34- ; File No. SR-NASDAQ-2016-101)

August __, 2016

Self-Regulatory Organizations; The NASDAQ Stock Market LLC; Notice of Filing of Proposed Rule Change to Add Nasdaq Rule 7046 (Nasdaq Trading Insights)

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”),¹ and Rule 19b-4 thereunder,² notice is hereby given that on August 15, 2016, The NASDAQ Stock Market LLC (“Nasdaq” or “Exchange”) filed with the Securities and Exchange Commission (“SEC” or “Commission”) the proposed rule change as described in Items I, II, and III below, which Items have been prepared by Nasdaq. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

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

Nasdaq proposes to add Nasdaq Rule 7046 (Nasdaq Trading Insights) to the Nasdaq rule book.

The text of the proposed rule change is available at http://nasdaq.cchwallstreet.com/, at Nasdaq’s principal office, and at the Commission’s Public Reference Room.

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

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

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

1. Purpose

The Exchange proposes to add Nasdaq Rule 7046 (Nasdaq Trading Insights) to the Nasdaq rule book. The Nasdaq Trading Insights product is an optional market data service available to market participants for a corresponding fee\(^3\) and comprised of four distinct market data components. Specifically, and as described in greater detail below, the market data components include: (a) Missed Opportunity – Liquidity; (b) Missed Opportunity – Latency; (c) Peer Benchmarking; and (d) Liquidity Dynamics Analysis.

Currently, Nasdaq provides real-time prices and analytics in the marketplace. The Exchange believes that the additional data points from the matching engine outlined below may help market participants to gain a better understanding about their interactions with the Exchange. The four market data components that comprise the Nasdaq Trading Insights product will help market participants by providing them with a chance to learn more about when they may have better opportunities to access liquidity and to receive

\(^3\) A separate filing will address the pricing for the Nasdaq Trading Insights product, which also will be implemented on September 1, 2016, if SR-NASDAQ-2016-101, as amended, is approved by the SEC.
better execution rates. The proposed market data product will increase transparency and
democratize information so that all firms that themselves may not have the expertise to
generate such information may elect to subscribe to the Nasdaq Trading Insights product.
None of the components are real-time market data products.

(a) Missed Opportunity - Liquidity

Trading firms may seek to submit orders for the greatest number of shares possible without exceeding the amount of shares actually available. This component identifies when an order from a market participant might have been increased in size and thus executed more shares.4

For example, if a firm sends in an order that was fully executed and subsequently sends another order (or multiple orders) at the same or inferior price-level than originally executed, this indicates that they could have oversized their original order. This missed opportunity could have resulted in a larger fill which will allow firms to change their trading patterns to trade more efficiently. The Exchange will provide this information to firms on a T + 1 basis. The Missed Opportunity - Liquidity component may also benefit firms by providing greater visibility into exactly what was missed in trading so they may optimize their models and trading patterns to yield better returns.

4 The data elements for this component, in summary, are the: (i) Issue (Nasdaq symbol for the issue); (ii) Buy/Sell Indicator (side of the market at which the market participants are quoting); (iii) Price (the price (inclusive of decimal point) at which Nasdaq Market Center market participants had order interest for the given security at the given time); (iv) Order Reference Number (the unique reference number assigned to the new order at the time of receipt); (v) Order Entry Time Stamp (the time order was received in the system); (vi) Share Quantity (total number of shares submitted on original order); and (vii) Missed Opportunity Quantity (total number of shares missed).
The data included in this component is unique for each market participant’s port and only that market participant is eligible to receive this data upon voluntarily opting to pay the Nasdaq Trading Insights fee (as previously noted, the Nasdaq Trading Insights fee will be included in a future filing). The Exchange will ensure that each market participant receives only their own unique data and will not be able to obtain any other market participant’s unique data.

Market participants may already be able to derive the same data that is provided by this component based on their executions and algorithms that they have created. As more firms create increasingly sophisticated algorithms, they are able to determine where hidden pockets of liquidity exist. With this component, the Exchange is providing the information necessary for market participants interested in gaining insight into hidden pockets of liquidity and potentially improving their trading performance. For example, if a firm continuously executes against hidden orders and creates a model to potentially identify the amount of hidden liquidity for individual securities at certain time periods, it will be able to essentially recreate this product for itself.

(b) Missed Opportunity – Latency

Market participants generally would use liquidity accessing orders if there is a high probability that it will execute an order resting on the Exchange order book. This component identifies by how much time an order that may have been marketable missed executing.5 As with the Missed Opportunity - Liquidity component described above, this
component also will provide greater visibility into exactly what was missed in trading so market participants may optimize their models and trading patterns to yield better execution results. No specific information about resting orders on the Exchange book will be provided.

This component will help market participants to better understand by how much time they missed specific orders, thus determining whether they want to invest in the technology to mitigate the misses. For example, if a market participant sends in a marketable order, but an order resting on the Exchange order book was subsequently canceled or executed, the Exchange will let the market participant know for each of these orders submitted by how much time they missed an execution. The Exchange will provide this information to firms on a T + 1 basis.

Additionally, the data included in this component will be based only on the data of the market participant that opts to pay the Nasdaq Trading Insights fee to receive it (as previously noted, the Nasdaq Trading Insights fee will be included in a future filing). The Exchange will restrict all other market participants from receiving another market participant’s data.

(c) Peer Benchmarking

This component ranks the quality of a market participant’s trading performance against its peers.6 Market participants will be able to view their own trading activity

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6 The data elements for this component, in summary, include: (i) Total Dollar Volume; (ii) Total Share Volume, Share Volume of Liquidity Provision and
broken out by port with each being ranked independently for each metric against their peers trading with the Exchange. By understanding its ranking and its associated ranking with peers, market participants will have a better idea of how the competition is performing vis-à-vis their own trading.

Peer Benchmarking will help market participants better understand trending over time and whether behavioral changes they make translate into the expected results. Additionally, this component will assist market participants in understanding their rankings independent of any trading pattern changes the market participant may have made. It will let market participants know what their metric is ranked within their peer group and the market participant can glean how it is changing over time. Each port will be categorized into a peer grouping that will be based upon a given set of metrics that will share similar trading behavior characteristics and must include at least ten peers within a security. The Exchange will provide this information to firms on a T + 1 basis.

The data included in Peer Benchmarking is specific to a particular market participant’s port and only the market participant who pays the optional Nasdaq Trading Insights fee to receive it is eligible to receive Peer Benchmarking. Nasdaq will restrict all

Accessible for Tape A, Tape B and Tape C; (iii) Number of Trades, including Hidden Orders and Number of Hidden Trades; (iv) Mean/Median Trade Size; (v) Mean/Median Size of Hidden Orders; (vi) Number of Buy/Sell Orders Received; (vii) Number of Aggressive Orders, Mean Size of Aggressive Buy/Sell Orders; (viii) Number of Passive Orders, Mean Size of Displayed Passive Order, Hidden Passive for Buy and Sell Orders; (ix) Number of Orders at Best Bid/Ask Level; (x) Mean Cost to Execute for Buy and Sell for 1000, 5000, 10000 Shares; (xi) Number of Modified/Cancelled Buy/Sell Orders; (xii) Mean Buy/Sell Price Range; (xiii) Total Number of Buy/Sell Price; (xiv) Number, Mean – Resting Buy/Sell Price Points; (xv) Missed Opportunities- Liquidity, Latency; (xvi) Mean Share Volume Against Hidden, Mean Quote Rotation Time.
other market participants from receiving this market participant’s Peer Benchmark (as previously noted, the Nasdaq Trading Insights fee will be included in a future filing).

(d) Liquidity Dynamics Analysis

This component offers extensive historical insight into aggregated displayed and hidden orders on the Exchange for Reg NMS securities listed on Nasdaq, the New York Stock Exchange, and other U.S. equity exchanges. Specifically, this component will contain aggregated metrics and statistics about the liquidity on Nasdaq, including hidden liquidity on a security level. This will be presented as an FTP\(^8\) file with calculated statistics over a time window of 30 seconds, subject to change. The data will be analyzed every 30 seconds starting at 10 minutes prior to the market open and 10 minutes after the market close and it will include all orders that are visible, anonymous or non-displayed for each security. The Exchange will provide this information to firms on a T + 1 basis.

Market participants may opt to utilize this component to better understand when pockets of accessible liquidity exist. This may help market participants optimize their algorithm and Smart Order Router to potentially oversize orders and get better fill rates.

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\(^7\) The data elements for this component, in summary, are the: (i) Issue (Nasdaq symbol for the issue); (ii) Start Time; (iii) End Time; (iv) Side (identifies buy vs. sell side); (v) Level (level associated with the price); (vi) Average Depth (average depth of the book); (vii) Minimum Depth (minimum depth of the book); (viii) Maximum Depth (maximum depth of the book); (ix) Standard Deviation Depth; (x) Average Price; (xi) Minimum Price (minimum price in the book); (xii) Maximum Price (maximum price in the book); (xiii) Median Price (median price in the book); (xiv) Standard Deviation – Price; (xv) Minimum Distance from the QBBO; (xvi) Maximum Distance from the QBBO; (xvii) Mean Distance from the QBBO; (xviii) Median Distance from the QBBO; and (xix) Standard Deviation-Distance from QBBO.

\(^8\) FTP means a File Transfer Protocol, which is a standard network protocol used to transfer computer files between a client and server on a computer network.
2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with the provisions of Section 6 of the Act,\(^9\) in general and with Sections 6(b)(5) of the Act,\(^{10}\) in particular in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, 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. This proposal is in keeping with those principles in that it promotes increased transparency through the dissemination of the optional Nasdaq Trading Insights market data product to those interested in paying to receive the product.

The Exchange also believes this proposal is consistent with Section 6(b)(5) of the Act because it protects investors and the public interest and promotes just and equitable principles of trade by providing investors with a new option for receiving market data as requested by potential purchasers. The proposed rule change would benefit investors by facilitating their prompt access to the value added information that is included in the Nasdaq Trading Insights market data product, which includes the following components: (a) Missed Opportunity – Liquidity; (b) Missed Opportunity – Latency; (c) Peer Benchmarking; and (d) Liquidity Dynamics Analysis.


\(^{10}\) 15 U.S.C. 78f(b)(5).
In adopting Regulation NMS, the Commission granted self-regulatory organizations (“SROs”) and broker dealers increased authority and flexibility to offer new and unique market data to consumers of such data. It was believed that this authority would expand the amount of data available to users and consumers of such data and also spur innovation and competition for the provision of market data. The Exchange believes that the Nasdaq Trading Insights product is the sort of market data product that the Commission envisioned when it adopted Regulation NMS.

The Commission concluded that Regulation NMS—by deregulating the market in proprietary data—would itself further the Act’s goals of facilitating efficiency and competition:

> [E]fficiency is promoted when broker-dealers who do not need the data beyond the prices, sizes, market center identifications of the NBBO and consolidated last sale information are not required to receive (and pay for) such data. The Commission also believes that efficiency is promoted when broker-dealers may choose to receive (and pay for) additional market data based on their own internal analysis of the need for such data.11

By removing “unnecessary regulatory restrictions” on the ability of exchanges to sell their own data, Regulation NMS advanced the goals of the Act and the principles reflected in its legislative history. This proposed new market data product provides investors with a new option for receiving market data, which was a primary goal of the market data amendments adopted by Regulation NMS.12


12 See Regulation NMS Adopting Release, supra, at 37503.
(a) Missed Opportunity – Liquidity

This component is designed for trading firms that seek to submit orders for the greatest number of shares possible without exceeding the amount of shares actually available. It identifies when an order from a market participant might have been increased in size and thus executed more shares.

The Exchange believes that providing this optional liquidity to interested market participants for a fee is consistent with facilitating transactions in securities, removing impediments to and perfecting the mechanism of a free and open market and a national market system, and, in general, protecting investors and the public interest because it provides greater visibility into exactly what was missed in trading so market participants may optimize their models and trading patterns to yield better execution results by identifying when an order from a market participant might have been increased in size and thus executed more shares.

(b) Missed Opportunity – Latency

This component is designed for market participants that are interested in gaining insight into latency in connection with orders that failed to execute against an order resting on the Exchange order book since it identifies by how much time an order that may have been marketable missed executing.

The Exchange believes that providing this optional latency data to interested market participants for a fee is consistent with facilitating transactions in securities, removing impediments to and perfecting the mechanism of a free and open market and a national market system, and, in general, protecting investors and the public interest because it provides greater visibility into exactly what was missed in trading so market
participants may optimize their models and trading patterns to yield better execution results by identifying by how much time an order that may have been marketable missed executing.

(c) **Peer Benchmarking**

This component is designed for market participants that are interested in gaining insight into the quality of its trading performance against its peers trading with the Exchange.

The Exchange believes that providing this optional Peer Benchmarking data to interested market participants for a fee is consistent with facilitating transactions in securities, to removing impediments to and perfecting the mechanism of a free and open market and a national market system, and, in general, protecting investors and the public interest because it provides additional insight for market participants into how the competition is performing vis-à-vis their own trading, as well as helping market participants better understand trending over time and whether behavioral changes they make translate into the expected results.

(d) **Liquidity Dynamics Analysis**

This component is designed for market participants that are interested in gaining insight into when pockets of accessible liquidity exist. This component may help market participants optimize their algorithm and Smart Order Routers to potentially oversize orders and get better fill rates.

The Exchange believes that providing this optional data concerning historical insight into aggregated displayed and hidden orders on the Exchange for Reg NMS securities listed on Nasdaq, the New York Stock Exchange, and other U.S. equity
exchanges, to interested market participants for a fee is consistent with facilitating transactions in securities, removing impediments to and perfecting the mechanism of a free and open market and a national market system, and, in general, protecting investors and the public interest because it provides greater visibility into when pockets of accessible liquidity exist. This, in turn, may help market participants optimize their algorithm and Smart Order Routers to potentially oversize orders and get better fill rates.

In summary, the Nasdaq Trading Insights market data product will help to protect a free and open market by providing additional non-core data (offered on an optional basis for a fee) to the marketplace and by providing investors with greater choices. Additionally, the proposal would not permit unfair discrimination because the Nasdaq Trading Insights product will be available to all of the Exchange’s participants.

B. **Self-Regulatory Organization’s Statement on Burden on Competition**

The Exchange does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act, as amended. In fact, the Exchange believes that the Nasdaq Trading Insights market data product will enhance competition by providing a new option for receiving market data to market participants, which was a primary goal of the market data amendments adopted by Regulation NMS.

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13  See Sec. Indus. Fin. Mkts. Ass’n (SIFMA), Initial Decision Release No. 1015, 2016 SEC LEXIS 2278 (ALJ June 1, 2016) (finding the existence of vigorous competition with respect to non-core market data).

14  Id.

15  See Regulation NMS Adopting Release, supra, at 37503.
The market for proprietary data products is also highly contestable because market entry is rapid, inexpensive, and profitable. The history of electronic trading is replete with examples of entrants that swiftly grew into some of the largest electronic trading platforms and proprietary data producers: Archipelago, Bloomberg Tradebook, Island, RediBook, Attain, TracECN, BATS Trading and BATS/Direct Edge. A proliferation of dark pools and other ATSs operate profitably with fragmentary shares of consolidated market volume.

Regulation NMS, by deregulating the market for proprietary data, has increased the contestability of that market. While broker-dealers (“BDs”) have previously published their proprietary data individually, Regulation NMS encourages market data vendors and BDs to produce proprietary products cooperatively in a manner never before possible. Multiple market data vendors already have the capability to aggregate data and disseminate it on a profitable scale, including Bloomberg and Thomson Reuters. In Europe, Cinnober aggregates and disseminates data from over 40 brokers and multilateral trading facilities.16

In the case of TRFs, the rapid entry of several exchanges into this space in 2006-2007 following the development and Commission approval of the TRF structure demonstrates the contestability of this aspect of the market.17 Given the demand for trade reporting services that is itself a by-product of the fierce competition for transaction executions – characterized notably by a proliferation of ATSs and BDs offering

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17 The low cost exit of two TRFs from the market is also evidence of a contestable market, because new entrants are reluctant to enter a market where exit may involve substantial shut-down costs.
internalization – any supra-competitive increase in the fees associated with trade reporting or TRF data would shift trade report volumes from one of the existing TRFs to the other\(^\text{18}\) and create incentives for other TRF operators to enter the space. Alternatively, because BDs reporting to TRFs are themselves free to consolidate the market data that they report, the market for over-the-counter data itself, separate and apart from the markets for execution and trade reporting services – is fully contestable.

In this instance, the proposed rule change to offer the optional Nasdaq Trading Insights market data product for a fee is subject to market participant interest. Additionally, some market participants may already be able to derive the same data that is provided by some of the components based on their executions and algorithms that they have created.

In sum, if the Nasdaq Trading Insights product that is the subject of the rule change proposed herein is unattractive to market participants, market participants will opt not to purchase it. Accordingly, the Exchange does not believe that the proposed change will impair the ability of members or competing order execution venues to maintain their competitive standing in the financial markets.

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

Written comments were neither solicited nor received.

\(^{18}\) It should be noted that the FINRA/NYSE TRF has, in recent weeks, received reports for almost 10% of all over-the-counter volume in NMS stocks.
III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 45 days of the date of publication of this notice in the Federal Register or within such longer period (i) as the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the Exchange consents, the Commission shall: (a) by order approve or disapprove such proposed rule change, or (b) institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act.

Comments may be submitted by any of the following methods:

Electronic comments:

- Use the Commission’s Internet comment form (http://www.sec.gov/rules/sro.shtml); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-NASDAQ-2016-101 on the subject line.

Paper comments:

- Send paper comments in triplicate to Brent J. Fields, Secretary, Securities and Exchange Commission, Station Place, 100 F Street, NE, Washington, DC 20549-9303.

All submissions should refer to File Number SR-NASDAQ-2016-101. This file number should be included on the subject line if e-mail is used. To help the Commission
process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission’s Internet website http://www.sec.gov/rules/sro.shtml.

Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission’s Public Reference Room, 100 F Street, NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of Nasdaq. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly.

All submissions should refer to File Number SR-NASDAQ-2016-101 and should be submitted on or before [insert date 21 days from publication in the Federal Register].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.19

Robert W. Errett
Deputy Secretary

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

**The NASDAQ Stock Market Rules**

7046. [Reserved] **Nasdaq Trading Insights**

(a) The Nasdaq Trading Insights product will consist of one or more of the following products:

(1) Missed Opportunity – Liquidity. This component identifies when an order from a market participant could have been increased in size and executed more shares and is identified primarily through a market participant’s Missed Opportunity – Liquidity shares.

(2) Missed Opportunity – Latency. This component identifies by how much time a marketable order missed executing a resting order that was canceled or executed and is identified primarily through a market participant’s Missed Opportunity – Latency times.

(3) Peer Benchmarking. This component ranks the quality of a firm’s trading performance against their peers trading with the Nasdaq exchange. The following is a list of categories for this component:

   (A) Trade and Order Information as to Price/Volume/Size

   (B) Statistics as to Price/Volume/Size

   (C) Information as to Missed Opportunities

(4) Liquidity Dynamics Analysis. This component offers extensive historical insight into visible and non-displayed orders on the Nasdaq exchange. This includes statistics regarding quantity and price at each of the top five price levels per buy/sell side and per stated time period.

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