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April 18, 2014

Ms. Elizabeth M. Murphy Secretary Securities and Exchange Commission 100 F Street, N.E. Washington, D.C. 20549-1090

Re: File No. SR-Phlx-2013-113—Request for Information

Dear Ms. Murphy:

NASDAQ OMX PHLX LLC ("Phlx") respectfully submits the following response to the Commission's request for data and information, dated April 7, 2014, relating to Phlx's proposal to amend its pricing schedule to increase the rebates available to certain market participants who transact Customer orders on Phlx (the "Proposal"). As described more fully below, the Proposal represents one aspect of Phlx's efforts to provide better service and lower costs to members and investors. Phlx expects that the Proposal could allow it to increase its volume by offering an attractive discount to members—which would lead to enhanced liquidity and tighter spreads and thereby benefit Phlx market participants through improved execution quality and lower costs. But Phlx faces robust competition from other exchanges, which could respond by adopting their own discounts, improving their services, or otherwise offering more attractive or differentiated products that appeal to members. This is the essence of competition. By promoting competition, reducing costs, and encouraging market participants to direct more liquidity to Phlx, the Proposal furthers the investor-protection purposes of the Exchange Act, and enhances the national market system as a whole.

By way of example, within one month of Phlx's initial announcement of the Proposal, MIAX and ISE countered with enhanced rebates of their own. Likewise, in the months that have followed, MIAX alone has announced seven additional price changes—and has plans to

<sup>&</sup>lt;sup>1</sup> See Statement of Robert Willig and Gustavo Bamberger, at 20 (hereinafter, "Willig & Bamberger").

implement a price-improvement mechanism—all in an effort to stay competitive with the rapidly-evolving offerings of rivals.<sup>2</sup>

These examples are illustrative of the highly competitive nature of the options exchange marketplace, which includes twelve exchanges and seven exchange operators. New entry is common; seven exchanges have opened since 2003, and all have been able to increase their market share.<sup>3</sup> In this competitive environment, market shares fluctuate constantly.<sup>4</sup> And exchanges have proven viable even at a small scale.<sup>5</sup> For these and other reasons, even Phlx's competitors contend that the options exchange marketplace is "highly competitive."

Fundamentally, if the Proposal is attractive to members, they will respond favorably, and customer welfare and competition will be enhanced. In such a case, complaints by competing exchanges about losing business to a rival should not be given any weight; the marketplace and customers will be better off if regulatory intervention does not squelch this competitive activity. On the other hand, if the Proposal is not attractive to members, it will have no effect on the marketplace and NASDAQ will look for other ways to attract order flow.

Given the competitive nature of the marketplace—and the fact that the Proposal is, at bottom, a price cut that should be appealing to Phlx's members—Phlx respectfully submits that the Commission should approve the Proposal. Phlx also responds to the Commission's specific information requests as follows.

# **Request 1:**

Assuming there is no options volume change on Phlx, NASDAQ Options Market (NOM), and NASDAQ OMX BX (BX), what does Phlx estimate would be the annual cost savings to Phlx members as a result of the Proposal? Please provide detail as to how you calculated your estimate.

## **Phlx Response:**

Phlx estimates that its members will save approximately \$62,592 per month as a result of the Proposal, assuming that there is no volume change on Phlx, NOM, or BX. This equates to an annualized savings of \$755,424. This estimate is based on Phlx's experience before the Proposal was in effect. At the time the Proposal was first implemented, one firm qualified for the additional rebate available under the Proposal based on its pre-existing trading volume. That

<sup>&</sup>lt;sup>2</sup> MIAX announced three price changes on March 12 and four additional pricing modifications on February 5, February 6, February 28, and March 10. It filed its price improvement mechanism rule set on March 4. *See* MIAX Rulemaking Archive (last visited April 10, 2014), *available at*: <a href="http://www.sec.gov/rules/sro/miax/miaxarchive/miaxarchive2013.shtml">http://www.sec.gov/rules/sro/miax/miaxarchive/miaxarchive2013.shtml</a>.

<sup>&</sup>lt;sup>3</sup> See Willig & Bamberger at 13.

<sup>&</sup>lt;sup>4</sup> See id. at 7-8.

<sup>&</sup>lt;sup>5</sup> See id. at 13-14.

<sup>&</sup>lt;sup>6</sup> Phlx Response Letter, at 10 (Jan. 24, 2014) (*quoting* International Securities Exchange, LLC, Re: File No. SR-PHLX-2013-113, at 2 (Dec. 20, 2013) (File No. SR-PHLX-2013-13)).

firm received an additional \$0.02 rebate per contract, which equates to \$62,592 in savings over that month

Phlx's forecast, however, is approximate and forward-looking (as are all of the predictions made in these responses). The actual savings experienced by members may vary. For example, Phlx's competitors might respond to the Proposal by offering enhanced rebates of their own, or by making their services more attractive. If those competitive responses attract order flow from Phlx to those other exchanges, the reduced trading volume on Phlx would decrease the savings that Phlx members would receive under the Proposal—although those members would then benefit from the savings that they enjoy as a result of rivals' price cuts.

For similar reasons, Phlx believes that monthly estimates may be a more accurate measure of the effects of the Proposal. Because of the competitive nature of the options exchange marketplace, pricing and services change rapidly. The benefits that Phlx members receive from the Proposal on Phlx itself could change significantly after a short period of time, as rival exchanges respond by cutting their own prices. This may make annual estimates less informative than monthly estimates.

### **Request 2:**

Assuming there is an increase in options volume on Phlx, what does Phlx estimate would be the annual cost savings to Phlx members as a result of the Proposal? Please provide detail as to how you calculated your estimate. Please use realistic assumptions about the options volume increases and explain the basis for your assumptions.

### **Phlx Response:**

When implementing the Proposal, Phlx did not have a specific expectation as to the precise volume increases that would result from the Proposal. Determining the effect that the Proposal will have on volume is difficult, because the options exchange marketplace changes rapidly and is highly competitive. While the Proposal may lead to volume increases on Phlx, NOM, or BX, rival exchange operators may react by lowering their own prices (or improving the quality of their services), which could negate the volume increase caused by the Proposal. And, in particular, making annual volume or savings calculations would be particularly difficult. Given the speed at which the industry moves, annual calculations would likely become outdated soon after the implementation of the Proposal.

In addition, by its nature, the Proposal gives Phlx members increased flexibility by allowing them to qualify for Phlx rebates through trades on Phlx, NOM, or BX. This makes it particularly difficult to predict which of the three affiliated options exchanges would enjoy the volume increases that could result from the Proposal.

During the month in which the Proposal was previously in effect, there was a modest increase in Phlx's Customer volume. Primarily, however, two firms qualified for the rebate by shifting volume from rival exchanges to NOM. In addition, as noted above, a third firm qualified for the rebate based on its pre-existing volume. The table below illustrates the market share of industry Customer equity options and exchange-traded product options volume of the three participants that qualified for the Proposal in November 2013.

	10/1/2013			11/1/2013				
Phlx Member	BX	NOM	PHLX	Total	BX	NOM	PHLX	Total
Phlx Member A	0.05%	0.59%	1.65%	2.29%	0.04%	1.67%	1.57%	3.29%
Phlx Member B	0.14%	1.21%	1.39%	2.74%	0.11%	1.16%	1.77%	3.04%
Phlx Member C	0.05%	0.58%	1.08%	1.71%	0.05%	1.44%	1.10%	2.60%

If, however, all three firms were to increase their Phlx volume by 10-20 percent from their November volume, then these members would save an estimated \$69,249-\$148,213 per month (or \$830,997–\$1,778,561 per year). While Phlx does not have a precise expectation as to the increase in volume that the Proposal would cause (and Phlx's volume did not increase to this extent when the Proposal was in effect), 10-20 percent increases in volume are common in the marketplace.

Actual marketplace performance would likely deviate from these estimates as competing exchanges adopt competitive responses in an effort to attract order flow. Under any scenario, however, price competition of this nature would result in savings to members and investors in comparison to a but-for world in which regulatory intervention impedes NASDAQ's ability to offer additional rebates that members find attractive.

## **Request 3:**

How does Phlx believe the Proposal would impact overall Phlx fee revenues as compared to Phlx's current fee revenues under its existing fee structure, and why? Please provide a response to the same question for NOM and BX. Please provide detail as to the calculation of your estimate for each of Phlx, NOM and BX and for all three of these exchanges combined.

#### **Phlx Response:**

Phlx anticipates that the Proposal will not materially increase or decrease the *total* transaction revenues of Phlx, NOM, and BX. However, Phlx anticipates that the Proposal will increase its trading volume, decrease the transaction fee revenue per contract, and improve its competitive position.

During the month in which the Proposal was previously in effect, the combined market share of Phlx, NOM, and BX increased from 26.44 percent (in October 2013) to 27.10 percent (in November 2013), heavily influenced by increases in floor trading at Phlx and less by the volume shifts due to the Proposal. Phlx, NOM, and BX's market share of industry cleared trades across all listed options products also increased from 27.1 percent to 28.2 percent because the size of a Customer order—the targeted volume of the Proposal—is smaller at ~8 contracts per executed order than the average floor-based transaction. The changes in market share of cleared trades were directly related to the Proposal. But transaction fee revenue per contract declined from \$0.133 to \$0.127 due to the increased rebates available under the Proposal, as well as unrelated factors (*e.g.*, increased floor trading on Phlx, which is subject to certain fee caps). The three exchanges' combined revenues actually declined from \$12.7 million in October to \$9.79 million in November, but this was caused primarily by decreases in industry volume and a reduction in trading days. If industry trading volume had remained unchanged, the three

exchanges' combined total transaction revenue would have essentially remained flat across an increase in volume.

The Proposal did result in \$232,191 of increased revenues relating to OPRA (*i.e.*, data fees resulting from an industry-wide data plan) due to an increase in cleared trades and the Real-Time Information Fee (*i.e.*, information fees resulting from details sent to a trader about their trades).

## **Request 4:**

Please explain what Phlx means by "all other market participants" are expected to benefit from the additional rebate. Please provide quantitative support for your explanation.

### **Phlx Response:**

The Proposal will benefit all Phlx market participants, including those who obtain the enhanced rebates and those who do not. The Proposal is designed to attract increased Customer liquidity to Phlx (as well as NOM and BX). This results in more trading opportunities, which attract enhanced specialist and market maker liquidity. That facilitates tighter spreads, which may in turn lead to increased order flow. Phlx market participants benefit from increased liquidity and tighter spreads even if they do not obtain the enhanced rebates available under the Proposal. This, in turn, furthers the investor-protection purposes of the Exchange Act.

Market participants and investors benefit in another way, too. The Proposal was designed in part to attract Directed Orders—i.e., Customer orders directed to particular market makers for execution. Under Phlx Rules 1080 and 1014, that particular market maker—which is referred to as the "Directed Participant"—can execute as much as 40 percent of the order. In practice, however, the Directed Participant only executes approximately nine percent of Directed Orders on average. The remainder of the orders are executed by other market participants, as illustrated in the table below. To take one example, a major firm might direct a Customer order to its affiliated market making unit. That market making unit could execute as much as 40 percent of the contracts, but the rest of the contracts would be executed by others.

This dynamic ensures that, to the extent that the Proposal successfully encourages market participants to place Directed Orders on Phlx, those Directed Orders benefit market participants beyond the Directed Participant. Those other market participants benefit by being able to execute the majority of the contracts included in the Directed Order.

See Exchange Act Release No. 34-70866, at 9 (Nov. 13, 2013) (Notice of Filing and Immediate Effectiveness of Proposed Rule Change to Offer a Customer Rebate).

<sup>&</sup>lt;sup>8</sup> See Rule 1080(l); Rule 1014(g)(viii); Phlx Directed Order Flow (last visited April 17, 2014), available at: http://www.nasdagtrader.com/micro.aspx?id=phlxdirectedorderflow.

	Directed	Directed	Directed	Directed
	Customer Orders	Customer Orders	Customer Orders	Customer Orders
	Executed by the	Executed by	Executed by	Executed by
	Directed	other Phlx	other Customer	other
	Participant	Market Makers	Orders	Broker/Dealers
				and Professionals
October 2013	9%	80%	5%	6%
November 2013	9%	78%	6%	7%
December 2013	9%	77%	6%	8%

### **Request 5:**

Would Phlx realize any cost savings from the proposed rebate based on volume transacted on Phlx, NOM, and/or BX that could not be realized from a rebate based solely on volume transacted on Phlx? Please explain.

#### **Phlx Response:**

The Proposal is not expected to result in substantial total cost savings in the near term. Most of Phlx's costs are fixed, meaning that they are not affected by modest changes in volume. On the other hand, large increases in volume may require Phlx, NOM, or BX to incur significant expenses to increase capacity. The Proposal is not expected to result in volume increases sufficient to require such expenditures. In the future, however, if one of the exchanges nears the point at which additional volume increases would require significant capacity increases, cross-exchange pricing could be used to encourage members to shift volume from that exchange to one of the affiliated exchanges that has excess capacity. Phlx has not attempted to quantify these potential cost savings, however, because they are not expected to materialize in the near future.

The Proposal should lead, however, to other substantial benefits. As an initial matter, the Proposal serves as a price reduction for qualifying Phlx members, which can pass those savings on to their customers. Those members will benefit from the enhanced rebates that they can obtain under the Proposal. And, importantly, members who choose to qualify by maintaining volume on NOM or BX (as opposed to shifting their volume to Phlx, as would be required to qualify for a Phlx-only rebate) will have the flexibility to route their orders to NOM or BX without reducing the rebates that they accrue on Phlx. Notably, Citadel LLC—the only member to comment on the Proposal—supports the Proposal because it believes it and investors will benefit from this flexibility.

In addition, the Proposal should lead to greater volume increases than would be possible through a Phlx-only rebate. These additional volume increases are possible because the Proposal represents a form of differential pricing. <sup>10</sup> Employing bundled pricing in this manner can induce new trading and prompt members to switch from competing exchanges. In either scenario, members and investors are better off. Indeed, as a leading antitrust treatise explains, when

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<sup>&</sup>lt;sup>9</sup> See Citadel Comment, at 2-3 (Dec. 18, 2013); Willig & Bamberger at 19-20.

Willig & Bamberger at 17-18.

bundled discounts are used as a form of differential pricing, "the bundle is very likely to be output-increasing, and its profitability does not depend on the exclusion of any rival," meaning that "[1]ittle basis exists for condemning [the] package discount."

## **Request 6:**

If Phlx expects that there will be an increase in options volume directed to Phlx, NOM, and/or BX as a result of the Proposal, what is the estimated annual change in options volume that is expected? Please provide detail as to how you calculated your estimate.

### **Phlx Response:**

Phlx has not made precise projections as to the amount of volume that might shift as a result of the Proposal. Moreover, such projections are inherently difficult, because it is likely that there would be competitive responses to the Proposal (as were observed in the actual world following the implementation of the Proposal).

#### **Request 7:**

If Phlx expects that there will be an increase in options volume directed to Phlx as a result of the Proposal, where does Phlx believe that its expected options volume increase would be derived from?

- a. Does Phlx expect the options volume increase to be derived from the expansion of options volume in the overall options market? Why or why not? If so, how much of the option volume increase does Phlx expect to be attributable to this expansion? Please provide detail as to the calculation of your estimate and reasons for your response.
- b. Does Phlx expect the options volume increase to be derived from options volume redirected from other options exchanges to Phlx, NOM, and/or BX? Why or why not? If so, how much of the option volume increase does Phlx expect to be attributable to the redirection of options volume from other options exchanges? Please provide detail as to the calculation of your estimate and reasons for your response.

#### **Phlx Response:**

As discussed above, Phlx believes that the Proposal could allow Phlx and its affiliated exchanges to increase their share as some firms shift volume from competing exchanges to Phlx, NOM, or BX. At this time, however, Phlx does not have precise calculations as to the effect that the Proposal would have on industry volume. But Phlx expects—and basic economic theory predicts—that the Proposal could lead to an increase in total options exchange industry volume, but the belief is pricing alone will not have a material impact on industry volume. Other variables, such as volatility, new investors employing options as a viable investing tool, and enhanced broker services may be more impactful than the price reductions offered by this

IIIA Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law, at 345-46 & n.127 (3d ed. 2008); see also Willig & Bamberger at 16-19.

Proposal. However, the Proposal is a price cut and an improvement in the overall quality of services, and such activity generally results in an increase in overall marketplace demand.

### **Request 8:**

What is the estimated market share of options volume that Phlx, NOM, and BX expect to gain on an annual basis as a result of the Proposal? Please provide detail as to the calculation of your estimate for each Phlx, NOM and BX and for all three of these exchanges combined.

#### **Phlx Response:**

Phlx has not made precise projections as to the amount of market share that might shift as a result of the Proposal. Moreover, such projections are inherently difficult, because it is likely that there would be competitive responses to the Proposal (as were observed in the actual world following the implementation of the Proposal). The actual market share shifts observed in the month following the implementation of the Proposal were 1.23 percent, -0.43 percent, and -0.14 percent for Phlx, NOM, and BX (for a net increase of 0.66 percent), which were attributable primarily to changes in floor trading. However, as noted above the market share of cleared trades increased from 27.1 percent to 28.2 percent for the three exchanges.

## **Request 9:**

Did Phlx consider offering the proposed rebate based on volume transacted solely on Phlx? If so, why did Phlx not proceed with this alternative?

### **Phlx Response:**

Phlx has considered enhancing the attractiveness of the existing rebates based on Phlx volume—which it has done on several occasions. As discussed in Phlx's answer to Request 5, however, the Proposal provides several benefits beyond those available from a Phlx-only rebate. Notably, the Proposal allows Phlx to offer a significant price cut to members, may result in additional volume, and will provide increased flexibility for market participants.

#### Request 10:

Did Phlx consider any alternatives to the Proposal that could provide similar cost savings to market participants or increased options volume to the Exchange?

- a. If so, please describe each alternative (<u>i.e.</u> what would the potential fee reduction be) and explain how that alternative compares with the Proposal and why Phlx did not chose that alternative.
- b. Are there any particular cost savings or options volume increases that can be achieved only through the Proposal? Please explain what those cost savings or options volume

See, e.g., Exchange Act Release No. 34-71257 (Jan. 8, 2014); Exchange Act Release No. 34-70969 (Dec. 3, 2013); Exchange Act Release No. 34-70840 (Nov. 8, 2013).

increases are and why such cost savings or options volume can only be achieved through the Proposal.

c. Are there any efficiencies that would be gained from the proposed rebate based on volume transacted on Phlx, NOM, and/or BX that could not be gained by a rebate based solely on volume transacted on Phlx or other means? Please provide data and analysis to support these efficiency gains. Did Phlx consider any alternatives to the Proposal that would provide the same efficiency gains? If so, please elaborate about those alternatives.

#### **Phlx Response:**

Phlx considered increasing the rebates available to members under the existing tiered rebate structure, which is based only on Phlx trading volume. As discussed in Phlx's response to Request Number 5, however, Phlx believes that the Proposal offers a number of advantages that cannot be obtained through offering rebates based solely on Phlx volume. Specifically, the Proposal gives members the flexibility to route orders to affiliated exchanges that best suit their needs for those transactions without reducing the rebates available on Phlx, which increases investor welfare and makes NASDAQ's overall offering more attractive to members.

# Request 11:

Please provide an example of how "an exchange could offer the same rebate to customers who execute the designated volume on a single exchange." Would the customers' benefits be the same as the customer benefits expected under the Proposal? Why or why not? If not, please explain the difference.

#### **Phlx Response:**

A single-exchange operator can offer a variety of rebates that would allow it to compete effectively, and profitably, in response to Phlx's Proposal. Most notably, a single-exchange operator can simply increase its own volume-based rebate. In fact, MIAX and ISE took that very step within one month of Phlx's announcement of the Proposal—and saw their market shares *increase*. It is telling that after six months of public comment, *no one* has claimed that single-exchange operators cannot profitably match Phlx's price cut. Absent such an allegation, there can be no argument that the Proposal would harm competition. 14

In addition, it is important to note that one of the advantages of the Proposal is that it addresses an inefficiency not faced by single-exchange operators. As discussed above, the Proposal allows Phlx to offer enhanced rebates while ensuring that members do not respond to those enhanced rebates by simply shifting volume from NOM or BX to Phlx—an inherently inefficient outcome. Single-exchange operators do not face this particular problem. They can

Willig & Bamberger at 20.

See Phlx Response Letter, at 9-10 (Jan. 24, 2014). As discussed more fully in Phlx's response letter, even if single-exchange operators could not profitably match the Proposal, that alone would not demonstrate harm to competition, as opposed to harm to competitors. Id. at 8, 10.

offer volume discounts without prompting a shift in volume away from affiliated exchanges (because they are not affiliated with other exchanges). For that reason, single-exchange operators can achieve many of the advantages inherent in the Proposal without engaging in cross-SRO pricing.

Single-exchange operators can also compete through improving their pricing and services in a variety of other ways. Single-exchange operators (and multiple-exchange operators) can compete through offering their own differentiated products, even if those services do not precisely match those offered by Phlx or any other exchange. For example, in August 2013, ISE Managing Director Boris Ilyevsky explained how its new Gemini exchange planned to offer its own unique appeal to its customers: "We're the only maker-taker exchange offering pro rata with customer priority. We believe that's an attractive differentiator for order-flow providers who are sending order flow to maker-taker markets, as all of them are price-time priority." 15

Similarly, CBOE offers better rebates for trades for proprietary options contracts (*i.e.*, contracts that are available only on CBOE) to members who also meet certain volume thresholds for multiply-listed options contracts (*i.e.*, contracts that are available on multiple exchanges). Phlx cannot offer this particular pricing proposal, since it does not execute trades for CBOE's proprietary contracts. But it can compete by offering pricing mechanisms that appeal to its members in other ways. Similarly, Phlx's rivals can continue to compete with Phlx without matching the precise terms of the Proposal.

In any event, CBOE, ISE, and NYSE each operate two exchanges, and can adopt pricing mechanisms similar to that outlined in the Proposal. The fact that they do not operate three exchanges is irrelevant. All of the exchanges operated by CBOE, NYSE, ISE, and NASDAQ differ in various ways. None of these operators could offer the exact same pricing and service proposals, since their exchanges' business models are not precisely identical. But that does not prevent CBOE, ISE, and NYSE from offering their own differentiated pricing that would presumably appeal to their own members (as long as competitive offerings of this nature are not foreclosed by regulatory intervention).

Finally, both single- and multiple- exchange operators can open new exchanges if they believe doing so would help them compete effectively. While the available evidence indicates that this is not necessary to compete against Phlx (before or after the Proposal), new entry is common in the options exchange marketplace. Seven exchanges have opened since 2003, and all have been able to increase their market share.<sup>17</sup>

As discussed above, the Proposal offers important benefits to Phlx and its members, including lower prices, increased liquidity, and tighter spreads. But rival exchanges will likely

See ISE Launches New Options Exchange, MarketsMedia (Aug. 6, 2013), available at: <a href="http://marketsmedia.com/ise-launches-new-options-exchange/">http://marketsmedia.com/ise-launches-new-options-exchange/</a>. ISE Gemini is affiliated with another options exchange, but nothing in this particular competitive plan requires a link with additional exchanges.

See CBOE Regulatory Circular RG13-158 (Dec. 13, 2013), available at: <a href="http://www.cboe.com/publish/RegCir/RG13-158.pdf">http://www.cboe.com/publish/RegCir/RG13-158.pdf</a>.

<sup>&</sup>lt;sup>17</sup> See Willig & Bamberger at 13.

devise countless other approaches to achieve those same goals. The success of any particular method should be determined by the competitive process and consumer choice. In this vibrantly competitive marketplace, this competitive innovation and differentiation should be permitted to flourish.

Sincerely,

Jeffrey Davis