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June 29, 2017

Brent J. Fields
Secretary
U.S. Securities and Exchange Commission
Division of Trading and Markets
100 F Street, NE
Washington, DC 20549-1090

Re: File Number SR-Phlx-2017-04

Dear Mr. Fields:

On May 3, 2017, the Securities and Exchange Commission ("SEC" or "Commission") issued an order (the "Order") instituting proceedings to determine whether to approve or disapprove the above captioned proposed rule change filing by NASDAQ PHLX LLC ("Phlx" or the "Exchange"). The proposed rule change would permit the listing and trading on the Exchange, on a pilot basis, of NASDAQ-100 index options with third-Friday of the month expiration dates, whose settlement value will be based on the closing index value, symbol XQC, of the NASDAQ-100 index on the expiration day ("p.m.-settled"). This letter responds to the Commission's request for additional information relating to this rule filing, generally regarding the potential impact of these options ("NDXPM options") on the underlying cash equities market and the appropriateness of the proposed pilot program. The Commission received no comments on the proposal when it was originally noticed. On May 20, 2017, the Chicago Board Options Exchange, Inc. ("CBOE") submitted a comment letter in support of the Phlx proposal in response to the Order.[1]

As the Commission acknowledged in the Order, the Exchange's proposed pilot program is similar to the pilot program the Commission approved in 2011 for the listing and trading of

[1] See Letter dated May 20, 2017, from Laura G. Dickman, Lead Counsel, Chicago Board Options Exchange, Inc., to Mr. Brent J. Fields, Secretary, Securities and Exchange Commission.

p.m.-settled S&P 500 index options ("SPXPM options") on the C2 Options Exchange ("C2").[2] In 2012 the Commission also approved the listing and trading of SPXPM options on a pilot basis on the CBOE.[3] The Exchange is unaware of any public discussion by the Commission of how its thinking has been informed by the data gathered and analysis undertaken in connection with those two pilot programs. We suggest it would be appropriate for the Commission to share the extent to which its views may have evolved during the course of those two pilots spanning over five years before seeking comment on the initiation of yet a third. Nevertheless, and without the benefit of the Commission's knowledge gained through the various data and reports submitted over the years by C2 and CBOE in connection with the earlier pilots, we offer our responses to the Commission's specific questions below.[4]

I. **Impact on the Underlying Cash Equities Market.**

The Commission requests input from commenters to inform its evaluation of whether p.m. settlement for Phlx's proposed NDXPM options could impact volume and volatility on the

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[2] See Securities Exchange Act Release No. 64011 (March 2, 2011), 76 FR 12775, 12776-77 (March 8, 2011) (SR-C2-2011-008).

[3] See Securities Exchange Act Release No. 68888 (February 8, 2013), 78 FR 10668 (February 14, 2013) (SR-CBOE-2012-120). In its proposed rule change for the SPXPM pilot, CBOE stated that C2 (which is wholly owned by the same corporation, CBOE Holdings, Inc., as CBOE) would cease trading SPXPM upon the introduction of SPXPM trading on CBOE, that CBOE would generally list and trade SPXPM on the same terms as the C2 pilot program, and that CBOE's pilot information would be identical to the information that C2 was required to report to the Commission pursuant to the C2 pilot program. The CBOE pilot has most recently been extended until May 3, 2018.

[4] The Exchange notes that various concerns raised in the initial C2 proposal were discounted by the Commission before the commencement of the pilot, in the initial approval order. The Commission stated, for example, that it did not believe that SPX on CBOE and a p.m.-settled S&P 500 index option on C2 would cause investor confusion, noting that the two products would trade under different ticker symbols and that any potential for investor confusion could be mitigated through investor outreach and education initiatives. The Commission also balanced the potentially negative competitive effects resulting from the inability of other options exchanges to list and trade SPXPM with the countervailing positive competitive effects of C2's proposal, concluding that the availability of SPXPM on the C2 exchange will enhance competition by providing investors with an additional investment vehicle. Finally, the Commission determined that position limits would not be necessary for SPXPM options as long as C2 had in place and enforced effective enhanced surveillance and reporting requirements allowing C2 to see, with considerable advance notice, the accumulation of large positions, which it could then monitor more closely as necessary and take additional action if appropriate. Commenters did not raise the foregoing concerns when the Exchange's NDXPM proposal was originally noticed. In any event, the same analysis should inform the Commission's consideration of the current NDXPM option proposal.

underlying cash equities markets at the close of the trading day, and the potential consequences this might have for investors and the overall stability of the markets.

The Commission's 2011 C2 pilot approval order set forth in a detailed manner its concerns at the time about the impact of p.m. settlement on cash-settled index options on the markets for the underlying stocks at the close on expiration Fridays, as well as an exhaustive history of the Commission's approval of proposed rule changes to transition cash-settled index options from p.m. settlement to a.m. settlement beginning in the 1980's. It observed that the cash settlement provisions of stock index futures and options contracts had facilitated the growth of sizeable index arbitrage activities by firms and professional traders and made it relatively easy for arbitrageurs to buy or sell the underlying stocks at or near the market close on expiration Fridays (i.e., the third Friday of the expiration month) in order to "unwind" arbitrage-related positions, further noting that these types of unwinding programs at the close on expiration Fridays often severely strained the liquidity of the securities markets as the markets, and in particular the specialists on the NYSE, faced pressure to attract contra-side interest in the limited time that was permitted to establish closing prices. The C2 pilot approval order reiterated Commission concerns that liquidity constraints faced by the securities markets to accommodate expiration-related buy or sell programs at the market close on expiration Fridays could exacerbate ongoing market swings during an expiration, and could provide opportunities for entities to anticipate these pressures and enter orders as part of manipulative or abusive trading practices designed to artificially drive up or down share prices. It stated that p.m.-settlement was believed to have contributed to above-average volume and added market volatility during the quarterly expirations of the third Friday of March, June, September and December when options, index futures, and options on index futures all expired simultaneously, which sometimes led to sharp price movements during the last hour of trading. The Commission stated that besides contributing to investor anxiety, heightened volatility during the expiration periods created the opportunity for manipulation and other abusive trading practices in anticipation of liquidity constraints.

Like the Commission Phlx understands the importance of, and is committed to the promotion and protection of, strong and orderly cash equity markets. Without the benefit of a pilot program, it is unable to conclusively determine whether and the extent to which NDXPM options might impact volume and volatility on the underlying cash equities markets at the close of the trading day. However, the SPXPM pilot program, initially implemented on C2 and then on CBOE, has been allowed to remain in effect for over five years and thus presumably has not created negative impacts to volume and volatility on the underlying cash equities markets that would warrant depriving investors of access to SPXPM options. Moreover, of the 107 constituent symbols of the NASDAQ-100 index, 88 are also constituents of the S&P 500 index. The potential impact of PM-settled NASDAQ-100 index options on trading in the underlying securities would thus be incremental, limited to the 19 component symbols not also components of the S&P 500 index.

As the Commission noted in the recent Order, the NDXPM pilot program has been modeled closely on the SPXPM pilot program. Given the similarities between NDX and SPX, one might reasonably expect comparable outcomes in their pilot programs. In fact, CBOE commented that the proposed NDXPM options do not present any novel issues that were not considered in connection with SPXPM options and thus should be approved on the same pilot basis as SPXPM options.

II. Changed Structure of Markets Today.

The Commission seeks input from commenters with respect to the operation and structure of the markets today in comparison to their operation and structure at the time of the shift to a.m. settlement of cash-settled index options, and whether the current operation and structure of the markets support, or do not support, allowing NASDAQ-100 options on Phlx to be p.m.-settled.

In the 2011 C2 approval order, the Commission discussed the evolution of the operation and structure of the markets in comparison to their operation and structure at the time of the shift to a.m. settlement of cash-settled index options in the 1980's and 1990's. The Commission acknowledged that the closing cross mechanisms on the primary listing stock markets had matured considerably since the late 1980s and that closing procedures used by the primary equity markets had evolved to offer a more transparent and automated process for attracting contra-side interest and determining closing prices in a manner that is comparable to the process used to determine opening prices. It observed that Nasdaq and other exchanges had adopted automated closing cross procedures for their equities markets which were designed to attract liquidity, to determine a price for a security that minimizes any imbalance, and to match orders at the 4:00 p.m. close. It also noted that participants of these exchanges generally received frequently-disseminated market data reports reflecting any imbalance, which were intended to attract offsetting interest to minimize or eliminate an imbalance heading into the close. Finally, it noted that in order to minimize the potential for price swings at the close the closing price on Nasdaq was required to be within an acceptable range of 10% of the midpoint of the NBBO.

The Commission also stated that it nevertheless remained concerned that the ability of such procedures to counter-balance any potential negative effects that could stem from p.m. settlement was dependent on their ability to attract liquidity in a fragmented market to the primary listing exchanges during a very concentrated window of time at the close of trading on expiration Fridays. It noted that while the enhanced closing processes on the primary listing markets may serve to mitigate some of the risk that imbalances on the underlying cash markets prior to the close could lead to excess volatility, the extent of that mitigation was unclear and that a pilot program would provide an opportunity to observe and analyze the actual effects on the underlying cash markets of SPXPM options. Importantly, however, the Commission further stated that the data collected from C2's pilot program would help inform the Commission's consideration of whether the SPXPM pilot should be modified, discontinued, extended, or permanently approved.

Phlx believes that the changes in the operation and structure of the markets since the time of the shift to A.M. settled cash-settled index options supports allowing NASDAQ-100 index options to be P.M. settled on a pilot basis. As with the SPXPM pilot, the data collected from the proposed NDXPM pilot will help inform the Commission's consideration of whether the

NDXPM pilot should be modified, discontinued, extended, or permanently approved. The Commission has approved SPXPM pilots on C2 and on CBOE. The Exchange sees no reason for different treatment of the NDXPM proposal.

III. Other P.M.-Settled, Cash-Settled Options.

The Commission seeks commenters' views on whether there were differences between Phlx's proposed product and other p.m.-settled, cash–settled options that raise novel issues and, if so, whether commenters believe such differences warrant different treatment or a different pilot design.

The NASDAQ-100 index is, like SPX, a broad-based security index. Though the indexes differ in composition and methodology, Phlx believes that these differences raise no novel issues in the context of the proposed NDXPM pilot program.

IV. Appropriateness of Pilot Program.

The Commission requests comment on whether commenters believe the proposed NDXPM pilot program is appropriate.

As the Commission has acknowledged, the NDXPM proposed pilot is modeled closely on the SPXPM pilot program which the SEC has already concluded provides an opportunity to observe and analyze the actual effects on the underlying cash markets of SPXPM. Consequently, Phlx is confident that the NDXPM pilot program is appropriate.

V. Adequacy of Pilot Program to Address Commission Concerns.

The Commission requests commenters' views on whether the proposed pilot program would adequately demonstrate whether the Commission's concerns about the adverse effect and impact of p.m. settlement are, or are not, implicated by the listing and trading of p.m.-settled options on the NASDAQ-100 and, if not, what information or data the pilot should include.

The Commission has not raised concerns with respect to NDXPM that differ in any way from those it identified with respect to SPXPM in the C2 approval order. Phlx therefore assumes that the information to be provided for both pilots should be the same. As stated above, Phlx has modeled its proposed pilot on the SPXPM pilot, understanding that the Commission has already evaluated and endorsed the appropriateness of the information and data to be provided.

VI. Differences between SPXPM Options and NDXPM Options Warranting Changes in Pilot Design.

The Commission seeks public comment on whether there are differences between the listing and trading of SPXPM options and the proposed NDXPM options that would warrant differences in the data, analyses, or reports that should be required for the Exchange's proposed pilot.

While the S&P 500 and the NASDAQ-100 differ in composition and methodology, the Exchange intends for the listing and trading of NDXPM and SPXPM options to be on the same terms. The Exchange believes that no differences in the data, analyses, or reports are warranted for the proposed NDXPM pilot other than as set forth in Item VII below with respect to the index to be used to normalize pilot data for prevailing market volatility. As noted above, CBOE has commented that the proposed NDXPM options do not present any novel issues that were not considered in connection with SPXPM options and thus should be approved on the same pilot basis as SPXPM options.

VII. Appropriate Data for Measuring Volatility.

The Commission notes in the Order that Phlx stated in Amendment No. 1 that "[r]aw percentage price change data as well as percentage price change data normalized for prevailing market volatility, as measured by an appropriate index as agreed by the Commission and the Exchange would be included as part of the pilot". The Commission seeks input on what commenters believe would be appropriate data to use with respect to measuring volatility for the proposed pilot.

Phlx would like to explain that the 2012 proposed rule change to adopt the CBOE SPXPM pilot program included a commitment that CBOE pilot data would include raw percentage price change data as well as percentage price change data normalized for prevailing market volatility, as measured by the CBOE Volatility Index ("VIX"). Understanding that normalization of price change data for prevailing market volatility is a useful analytical tool, the Exchange nevertheless disagrees that VIX – an index designed to measure implied volatility - is suitable for that purpose. The Exchange proposes to work with the Commission to identify the index, possibly the Nasdaq Composite Index, which most effectively will accomplish the intended goal of pilot data normalization.

VIII. Other Comment, Data or Analysis.

The Commission requests any comment, data, or analysis that commenters think may be relevant to the Commission's consideration of Phlx's proposal for p.m.-settled options on the NASDAQ-100.

Phlx has already provided reasons supporting the Commission's approval of NDXPM options on a pilot basis in its original proposed rule change, and will not repeat them here. We do wish to emphasize, however, that CBOE's comment letter supporting the Phlx proposal stated that P.M.-settled options listed and traded on CBOE have not caused the adverse effects of P.M.-settlement about which the Commission has expressed concerns.

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Phlx encourages the Commission to approve the proposed NDXPM options on a pilot basis. As with the SPXPM pilot, Phlx's proposal could benefit investors to the extent it attracts trading in p.m.-settled NASDAQ-100 index options from the opaque OTC market to the more transparent exchange-listed market. Moreover, it would offer investors another investment option through which they could obtain and hedge exposure to the NASDAQ-100 stocks. Commission approval of the proposal is consistent with the Act and, as with the SPXPM pilot, will provide investors with added flexibility through an additional product that may be better tailored to meet their particular investment, hedging and trading needs.

Very truly yours,

Jeffrey S. Davis