Summary of Recent and Upcoming Modifications to Openings on the Cboe Options Exchange

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Overview

Beginning at the end of Q1 2018 and continuing into the next quarter, Cboe Exchange, Inc. (“Cboe Options”) has implemented and will continue to implement enhancements and modifications intended to improve certain attributes of the opening process. This Exchange Notice is being issued to provide a summary of the changes currently in place and those planned for Q2. An in-depth explanation of the changes may be found via links to the applicable Exchange Notices.

Recently Implemented Modifications

1. SPX Conversion to Hybrid - On April 30, 2018, A.M.-settled SPX options series were converted to the Hybrid Platform. The conversion effected a number of changes, including one to allow quotes from all appointed SPX Market-Makers and orders from all origin codes/capacities to rest in the SPX simple order book and complex order book (COB) both pre-open and during intraday trading (with the exception of complex orders with an origin code/capacity of M or N which may rest pre-open provided they are marked OPG and may trade intraday if marked IOC). See Exchange Notice SPX Conversion to Hybrid Platform

2. Interval for Expected Opening Information (EOI) Messages – Effective May 11, 2018, the time interval between EOI messages that are disseminated via FIX, CMi2 and CSM beginning at approximately 7:30 a.m. CT and throughout the pre-open state was decreased from 30 to 5 seconds. Likewise, the time interval between EOI messages published to Cboe Options’ website was reduced from 30 to 15 seconds. See Time Interval Decrease for Expected Opening Information Messages

3. Cboe Website updates – Following the changes made on May 11, 2018 as noted above, the time interval between EOI messages published to Cboe Options’ website has been further reduced from 15 to 6 seconds. The website has also been updated to provide information regarding openings in
a clearer manner, including information regarding openings on expiration dates of volatility index derivatives.

4. OEPW and APR settings - Effective May 16, 2018  Cboe Options narrowed the Opening Exchange Prescribed Width (“OEPW”) and Acceptable Price Range (“APR”) settings applicable to option classes whose series are used to calculate exercise settlement values for expiring volatility index derivatives on their respective expiration dates. See Operational Setting Changes for Cboe Options Acceptable Price Range (APR) and Opening Exchange Prescribed Width (OEPW)

5. Opening Timers – Beginning June 18, 2018, Cboe Options reduced the length of system timers used during the opening process as follows:
   - Series in an option class will remain in Rotation state for 1 second before the system begins attempting to move them to Open state (Opening Delay Timer reduced from 2 seconds).
   - The system will attempt to move series in a given class from Rotation into an Open state over the next one second period (Opening Time Range reduced from two seconds).
   - The length of time between opening attempts is 100 milliseconds (Opening Interval Timer reduced from one second). See Opening Timer Updates.

**Forthcoming Modifications**

1. Cboe Opening Auction Feed - Effective July 9, 2018, the Cboe Opening Auction Feed will be launched. The new feed will provide market participants with a view of the Expected Opening Information (“EOI”) messages and the pre-open top of book bid/ask over a separate, streamlined multicast market data feed delivered through the Cboe CSM platform. The launch will provide a consolidated view of the opening auction information for SPX and SPXW offered free of charge. See Reminder Cboe Global Markets to Introduce Cboe Opening Auction Feed.

2. Series Opening Sequencing Process (pending regulatory review) – Effective in mid-July 2018, modifications to the sequence in which the system will open series in option classes will be implemented. The system will attempt to open at-the-money and out-of-the-money puts and calls with expirations of 29 to 31 days in a class before attempting to open all other series in the class. See Modifications to the General Opening Sequence


**Additional Information**
Questions regarding this subject may be directed to Cboe Market Structure and Functionality (MSF) and to the Cboe Operations Support Center (OSC).

We appreciate your continued support and will work hard every day to keep earning your business by powering your potential to stay ahead of an evolving market. As always, we are committed to our customers and to making markets better as your partner in trading.

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