

Regulatory Circular RG01-74

Date: May 30, 2001

To: CBOE Members and Member Firms

From: Trading Operations

Subject: ABP Split-price Enhancement

On Thursday, May 31, 2001, the Automated Book Priority (ABP) Split-price enhancement will be implemented. On that day, ABP Split-price will be active in approximately 300 classes which were previously enabled for the "old" version of ABP. Rollout to subsequent stations will commence according to a schedule approved by the Equity Floor Procedure Committee. Firms will be notified of activation at additional stations via printer message. A description of the functionality and examples are provided below. If you have any questions, please contact Anthony Montesano at x7365, Carole Zylius at x7174 or the Help Desk at x7100.

## **Overview of Functionality**

ABP Split-price will allow instantaneous execution of RAES-eligible orders when the book represents the best CBOE market. Incoming RAES-eligible orders will cross with customer orders resting in EBOOK when the book matches or improves the DPM/crowd market. ("BTM" or Book-Touches-Market condition). The instantaneous execution may occur at multiple prices if the book does not contain sufficient size to satisfy the entire RAES order. A "BOOK COMMITMENT" parameter (established at 10 contracts by the Equity Floor Procedure Committee) will ensure that at least 10 contracts will be traded at the disseminated market, even when the book quantity is less than 10. In such cases, the RAES wheel will absorb the difference between the actual book size and 10 contracts. If the RAES order has quantity remaining after trading with the book, then the quote will be refreshed, and the balance of the RAES order will be routed against the refreshed market, perhaps executing against the new quote. NBBO will be checked after each quote update to ensure that automatic executions do not occur at inferior prices.

Trades executed against the book will have an executing broker of "ZBK" and a contra of the book acronym. Conversely, a book order that gets "hit" by an incoming RAES order will have an executing broker of the book acronym, and a contra broker of "ZBK". All trades against the wheel will have an executing broker of "ZZZ".

## **Detailed Logic and Examples**

1. If the book matches the DPM/crowd market, RAES-eligible orders will execute at a single price.

**Example 1**: Book offer 20 contracts at 3.30; AQ offer 3.30 BUY 50 MKT → 20 trade with EBOOK at 3.30; 30 with wheel at 3.30.

2. If the book IMPROVES the crowd market, RAES-eligible orders will trade at the book price up to the book size or 10 contracts, whichever is greater. Note the Equity Floor Procedure Committee has established a "BOOK COMMITMENT" at 10 contracts. If the book size is less than 10, the wheel will trade the additional contracts, ensuring 10 contracts at the book price.

**Example 2**: Book offer 3 contracts at 3.20; AQ offer 3.30 BUY 10 MKT → 3 trade with EBOOK at 3.20; 7 with wheel at 3.20.

3. If the order exceeds the greater of the book size or the BOOK COMMITMENT, then the quote will be instantaneously refreshed after the initial execution at the book price, and the balance of the order will be re-evaluated against the new quote. If still marketable, the order will trade at the new price. If not marketable based on the refreshed CBOE market, then the balance of the order will be instantaneously booked and reflected in the CBOE quote.

**Example 3a**: Book offer 3 contracts at 3.20; AQ offer 3.30 BUY 20 MKT → 3 trade with EBOOK at 3.20; 7 with wheel at 3.20; 10 with wheel at 3.30.

**Example 3b**: Book offer 15 contracts at 3.20; AQ offer 3.30 BUY 20 MKT → 15 trade with EBOOK at 3.20; 5 with wheel at 3.30.

**Example 3c**: Book offer 15 contracts at 3.20; AQ offer 3.30 BUY 20 3.20 → 15 trade with EBOOK at 3.20; balance of 5 booked becoming the new bid.

4. If multiple book prices improve the crowd quote, the above processing is repeated.

**Example 4a**: Book offer 3 contracts at 3.10 and 4 contracts at 3.20; AQ offer 3.30 BUY 30 MKT → 3 trade with EBOOK at 3.10; 7 with wheel at 3.10; 4 with EBOOK at 3.20; 6 with wheel at 3.20; 10 with wheel at 3.30.

**Example 4b**: Book offer 3 contracts at 3.10 and 4 contracts at 3.20; AQ offer 3.30 BUY 30 3.20 → 3 trade with EBOOK at 3.10; 7 with wheel at 3.10; 4 with EBOOK at 3.20; 6 with wheel at 3.20; balance of 10 booked becoming the new bid.

5. The NBBO is checked each time the CBOE quote is refreshed. If better than CBOE by 1 tick, RAES will step-up. If better by more than 1 tick, RAES will be blocked.

**Example 5a**: Amex offer 3.10; Book offer 3 contracts at 3.20; AQ offer 3.30 BUY 20 MKT → 20 trade with wheel at 3.10 (1-tick step-up from CBOE best offer of 3.20).

**Example 5b**: Amex offer 3.20; Book offer 3 contracts at 3.20; AQ offer 3.30 BUY 20 MKT → 3 trade with EBOOK at 3.20; 7 with wheel at 3.20; 10 more with wheel at 3.20 (1-tick step-up from refreshed CBOE offer of 3.30).

Example 5c: Amex offer 3.20; Book offer 3 contracts at 3.20; AQ offer 3.40

BUY 20 MKT → 3 trade with EBOOK at 3.20; 7 with wheel at 3.20; balance of 10 routes to PAR or BART as NBBO REJECT (AMEX offer of 3.20 is 2 ticks better than refreshed CBOE offer of 3.40).

**Example 5d**: Amex offer 3.20; Book offer 3 contracts at 3.20; AQ offer 3.40 BUY 20 3.20 → 3 trade with EBOOK at 3.20; 7 with wheel at 3.20; balance of 10 is booked becoming the new bid, locking the AMEX offer.

6. For series with a manual quote (as opposed to an AutoQuote), RAES orders will only trade at a single price, and only up to the greater of the book size or 10 contracts.

**Example 6**: Book offer 3 contracts at 3.20; Manual offer of 3.20 or greater BUY 20 MKT → 3 trade with EBOOK at 3.20; 7 with wheel at 3.20; balance of 10 routes to PAR or BART.

7. AON and FOK orders will only execute against the book if the order quantity does not exceed the greater of the book size or 10 contracts.

Example 7a: Book offer 3 contracts at 3.20; AQ offer 3.30 BUY 10 3.20 FOK → 3 trade with EBOOK at 3.20; 7 with wheel at 3.20.

**Example 7b**: Book offer 3 contracts at 3.20; AQ offer 3.30 BUY 11 3.30 AON → Entire order routes to PAR or BART.

8. MIN orders will only trade against the book if the MIN quantity does not exceed the greater of the book size or 10 contracts.

**Example 8a**: Book offer 3 contracts at 3.20; AQ offer 3.30 BUY 20 3.20 MIN 10 → 3 trade with EBOOK at 3.20; 7 with wheel at 3.20; balance of 10 routes to PAR or BART.

**Example 8b**: Book offer 3 contracts at 3.20; AQ offer 3.30 BUY 20 3.30 MIN 10 → 3 trade with EBOOK at 3.20; 7 with wheel at 3.20; 10 with wheel at 3.30.

**Example 8c**: Book offer 3 contracts at 3.20; AQ offer 3.30 BUY 20 3.30 MIN 11 → Entire order routes to PAR or BART.

9. IOC orders will trade similar to non-contingency orders.

**Example 9a**: Book offer 3 contracts at 3.20; AQ offer 3.30 BUY 20 3.20 IOC → 3 trade with EBOOK at 3.20; 7 with wheel at 3.20; balance of 10 routes to PAR or BART.

**Example 9b**: Book offer 3 contracts at 3.20; AQ offer 3.30 BUY 20 3.30 IOC → 3 trade with EBOOK at 3.20; 7 with wheel at 3.20; 10 with wheel at 3.30.