



## Cboe Introduces FLEX Delta Adjusted at Close

Reference ID: CC2020052602

### Overview

**Applicable Cboe Exchange:** Cboe Options

**Effective July 20, 2020**, Cboe Options Exchange ("C1") will introduce a new order type, FLEX Delta-Adjusted at Close ("DAC"), that will be accepted during the Regular Trading Hours ("RTH") session, *subject to regulatory review*. DAC orders are limit orders for FLEX options that execute intraday and receive a delta-adjusted price based on that day's official closing price of the underlying security or index value.

Both simple and complex FLEX DAC orders will be supported. The maximum number of legs on a FLEX DAC order is 99. This differs from the number of legs supported on FLEX and non-FLEX orders without the DAC instruction, which is 100.

FLEX DAC orders will be supported for ETF/ETN/ETP and index products only.

### Technical Details

The DAC pricing instruction will allow a delta per leg of a FLEX options order to be designated. For FLEX DAC orders, the execution price will be re-calculated at the close based on the following formula:

Initial execution price + (designated delta) x (actual change in underlying reference price versus official closing price)

$A = I + (D * (C - R))$ , where...

A = Adjusted price

I = Initial execution price

D = Delta (positive number for calls; negative number for puts)

R = Underlying reference price

C = Closing price for the underlying security or index

### Entering FLEX Options DAC Orders

On the effective date, users will be able to designate a FLEX DAC order by sending the *PriceType* (FIX Tag 423) = "D" instruction. The designated delta value will be defined in the **new Delta** (FIX Tag 22023) field. Valid values for FIX Tag 22023 will be from 0 to 1.0000 for call options, or -1.0000 to 0 for put options. Applying the delta to the trading price could, in limited cases, result in a zero or negative trading price. In such cases, the initial execution price will be adjusted to a minimum value of \$0.01

For complex FLEX DAC orders, the **new** *LegDelta* (FIX Tag 22024) is specified within the *NoLegs* repeating group to indicate the specific delta value to apply to each leg.

The delta value for any call (put) must be less than or equal to the delta value of any other call (put) that is more in-the-money. For example:

- The delta value for a call leg must be lower than or equal to the delta value of another call leg with a lower strike price having the same expiration.
- The delta value for a put leg must be lower than or equal to the delta value of another put leg with a higher strike price having the same expiration.

DAC orders entered electronically via FIX protocol can optionally include a reference price for the underlying security or index. The reference price should be sent in the **new** *ReferencePrice* (FIX Tag 22025) field. The System will conduct reasonability checks on the user entered reference price value. If a user chooses not to specify a reference price, the System will apply the current value of the underlying available at the time of order entry as the reference price.

Orders responding to DAC auctions should specify neither the *ReferencePrice* nor the *Delta* or *LegDelta* values. If included, the response will be rejected.

### **Order Execution and Settlement**

FLEX DAC orders will only be executed via AIM, SAM, and single-sided auctions. FLEX DAC orders will not support FLEX percentage trades, Asian settlement, or Cliquet settlement options.

### **Fee Information**

No new fees will be necessary to support FLEX DAC orders. Existing rates for AIM, SAM and single-sided auctions will apply.

### **Market Data Updates**

To support the new DAC FLEX order type, the *DAC Auction Notification* and *DAC Trade* messages are being added to the FLEX Feed. DAC single-sided, AIM and SAM auction messages will include the reference price and delta per leg.

The initial execution of a DAC order will be reported to OPRA as a FLEX text message and will include a DAC identifier, delta value and reference price. The adjusted DAC price will be reported to OPRA as a price correction, similar to any other adjusted trade, and will include a cancel for the initial execution followed by a new trade containing the adjusted price.

### **Testing Opportunities**

The new FLEX DAC order functionality is currently available in the C1 certification environment.

## **Cboe Applications**

- Cboe Silexx will support FLEX DAC orders upon the effective date.
- PAR will not support FLEX DAC orders at this time.
- Bulk editing of DAC trades will **not** be supported in the Clearing Editor tool.

## **Additional Information**

The *Delta*, *LegDelta*, *Price*, and *ReferencePrice* fields will be reflected back on FIX Execution Reports. FLEX DAC prices will be marked as 'price corrections' on execution reports and drop ports. The System will send the `Trade Cancel/Correct` (UCC) message marked as 'Correct' (*ExecTransType* = 2) with the *CorrectedPrice* (FIX Tag 9620).

For additional information about the new FLEX DAC functionality, refer to the following technical specifications.

- [US Options FLEX Feed Specification](#)
- [US Options FIX Specification](#)
- [CAT Reporting Technical Specification for Industry Members](#)

Please contact the Cboe Trade Desk for support or with any questions.

We appreciate your business and remain committed to powering your potential with Cboe products, technologies, and solutions.

### **Cboe Trade Desk**

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