

TO: Clearing Member Firms
FROM: CME Clearing
ADVISORY #: 15-260
SUBJECT: **Clearing Process for Futures-Style Options**
DATE: August 31, 2015

On October 12, 2015, and pending all relevant CFTC regulatory review periods, CME will introduce **futures-style options**, at the request of market participants in certain asset classes. The initial contract will be product code **BZO**, a futures-style option on NYMEX Brent Crude Oil futures.

Currently, all options traded and cleared at CME Clearing and CME Clearing Europe are **premium-style**, also called **equity-style**, meaning that the option premium is calculated at the original trade price, and is recognized in a settlement cycle on the day the trade clears. (If the trade clears prior to the cutoff time for inclusion in the intraday settlement cycle, the premium amount is included in that intraday cycle, and if not it is included in the end-of-day cycle.) Thereafter, as long as the trade remains open, the current market value of the option is subtracted in the case of long options and added in the case of short options in order to determine the total performance bond (“initial margin”) requirement.

Futures-style options, by contrast, behave in a manner similar to that of a deliverable futures contract. At the onset of the trade, initial margin is collected; however, the current market value of the option is not added or subtracted as is the case with premium style options. Every open position is marked to market, and the resulting **settlement variation** (“variation margin”, “VM”) amounts are netted together with other such amounts in determining the net pay/collect amount. The premium amount is recognized on the day the option position is removed, whether by exercise, assignment, or expiration without exercise or assignment.

Here’s an example that will illustrate the difference: On day one, you buy a call at a price of 78, in an option product with contract value factor of 1.00. The settlement price on day one is 79. You exercise the option on day 2, on which day its settlement price is 80.

For a premium-style option

Day 1:

Trade price	78.0	
Premium	(78.0)	(premium value is owed)
Settlement price	79.0	
Cash flow from option	(78.0)	
Margin value of option	79.0	

Day 2:

Settlement price	80.0	(no additional cash flow, premium already
Cash flow from option	0.0	paid, no margin value because option
Margin value of option	0.0	has been removed)

For a futures-style option

Day 1:

Trade price	78.0
Premium on trade date	0.0
Settlement price	79.0
Settlement variation	1.0
Cash flow from option	1.0
Margin value of option	0.0

Day 2:

Settlement price	80.0	
Premium from option	(80.0)	(settlement price value is payable)
Settlement variation	1.0	(marking from 79 to 80)
Net cash flow from option	(79.0)	
Margin value of option	0.0	

There are several additional points to note.

First, exactly as with premium-style options, futures-style options may be American (exercise at any time) or European (exercise only at expiration).

Second, exactly as with premium-style options, a futures-style option may be cash-settled or physically-deliverable. If physically-deliverable, when exercised or assigned, it transforms into a position in its underlying, and if cash-settled, the mark to market from strike price to marking price of the underlying becomes a cash flow that is settled together with the option.

Third, exactly as with premium-style options, the underlying of a deliverable futures-style option could be a futures contract, or a combination of futures contracts such as a calendar spread, an intercommodity spread, or a strip, etc.

In FIXML, you use the **Valuation Method** attribute to distinguish a futures-style option from a premium-style option. The premium-style option has a valuation method of **EQTY**, and the futures-style option has a valuation method of **FUT**. For example:

ValMeth="EQTY"	for a premium-style option
ValMeth="FUT"	for a futures-style option

In the SPAN file, where futures-style margining has long been supported, the allowable values for valuation method are **EQTY** for equity-style or **FUT** for futures-style. The valuation method attribute is located at byte 117 on the type "P" record in the expanded ("PA2") format SPAN file.

We can compare and contrast the behavior of the **Amt** elements for premium-style options versus futures-style options:

For premium-style options:

On the Trade Confirmation message, the **PREM** amount contains the actual premium amount at trade price.

On the Trade Capture Report message on the Trade Register file, the **PREM** amount contains the actual premium amount at trade price.

On the Position Report message on the Trade Register file:

The **PREM** amount contains the total of the premium amounts summed from the trades cleared that day.

The **SMTM** and **FMTM** amounts are not present.

For a true cash-settled option, the **CASH** amount contains the true cash-settlement amount at exercise or assignment time.

For futures-style options:

On the Trade Confirmation message, the **PREM** amount will be provided as zero.

On the Trade Capture Report on the Trade Register file, the **PREM** amount will be provided as zero, and the **TVAR** amount will be provided as the mark to market from trade price to that day's settlement price (exactly as for a future.)

On the Position Report on the Trade Register file:

The **PREM** amount will contain the amount of premium resulting from options exercised or assigned that day. If no positions were exercised or assigned that day, the value will be zero.

The **SMTM** amount will contain the mark to market on the start of day position, exactly as for a future.

The **FMTM** amount will contain the sum of the **SMTM** amount plus the **TVAR** amounts on all option trades cleared that day, exactly as for a future.

For a true cash-settled option, the **CASH** amount contains the true cash-settlement amount at exercise or assignment time.

Summary

The impact to clearing firm bookkeeping systems is summarized as follows:

Don't book the premium on trade date based on the trade price.

Instead, calculate mark to market and process as variation, in exactly the same way as for a future.

At the point where the option position is removed, whether by exercise, assignment, or expiration unexercised or unassigned, book the premium based on the settlement price of the option on that date.

Note that at expiration, the settlement price of at-the-money and out-of-the-money options will normally be zero, and hence the calculation of the premium based on that settlement price will yield zero.

Testing opportunities

NYMEX BZO futures-style options are available now for testing in CME Clearing's New Release testing environment. Firms wishing to begin testing immediately may submit transactions as floor trades, or may request CME Clearing to enter transactions on their behalf.

The new product will be available in CME's Globex and Clearport New Release testing environments beginning on Thursday, September 10.

For further information

For **Special Executive Report #7452**, published August 31, 2015, on the **Listing of Brent Crude Oil Futures-Style Margin Option Contract**, please see:

<http://www.cmegroup.com/tools-information/lookups/advisories/ser/files/SER-7452.pdf>

For **New Product Summary #15-259**, published August 31, 2015, on Brent Crude Oil Futures-Style Margin Option Contract, please see:

<http://www.cmegroup.com/tools-information/lookups/advisories/clearing/files/Chadv15-259.pdf>

Also see page 7, "Variation and Premium Amounts for Futures-Style Options", on the document "Money Calculations for Futures and Options", at:

<http://www.cmegroup.com/clearing/files/CME-Money-Calculations-Futures-and-Options.pdf>

For more information or for assistance with testing, please contact CME Clearing at 312-207-2525.