

## Advisory Notice

Clearing House

TO: Clearing Member Firms  
Back Office Managers  
Back & Middle Office Software Providers

FROM: Clearing House Department

ADVISORY #: 07-203

SUBJECT: Negative Prices and Alphanumeric Firm ID's Start October 1, 2007

DATE: August 28, 2007

As previously announced, CME Clearing has been working for some time to support futures products with trade prices and settlement prices that can go **negative**, and option products with strike prices that can be **negative**. (Currently, such prices can go as low as zero, but cannot go negative.) Monday, October 1, 2007, will be the first date on which we will support such negative prices. The first contracts that are likely to trade or settle at less than zero are the Weekly Average Temperature products.

Also as previously announced, we have been working for some time to support firm identifiers which are three-character **alphanumeric** values -- letters and/or numbers. Currently, all firm ID's are composed of three numeric digits. October 1, 2007 will be the day when we begin introducing alphanumeric firm ID's.

The changes being put into effect for October 1, 2007 affect all clearing files, messages, and reports *when Firm ID's, strike prices, trade prices, or settlement prices are involved*. These changes can be summarized as follows:

- Report contract descriptions will change on several reports.
- Negative trade and settlement prices will be allowed for futures.
- Negative strike prices will be allowed for options.
- Alphanumeric Firm ID's may be assigned.

Firms will be able to test with the new files, messages, and reports beginning Wednesday, August 29, 2007.

For testing, firms must be connected to the Clearing Certification environment, as described in Advisory 08-184, located at: <http://www.cme.com/clearing/clr/clradv/files/Chadv07-184.pdf>.

Firm "1P1" has been designated as an alphanumeric firm ID that firms may use to test entry of opposite firm, or giveups. Products Z5, Z6, and Z7 have been used for testing negative trade, settle, and strike prices.

The full descriptions of the file and message format changes are contained in Clearing Advisory 06-99, located at: <http://www.cme.com/files/Chadv06-99.pdf>. An excerpt/update from that Advisory, and a summary of the changes that are coming are provided in the table below.

Sample data is located at: <ftp://ftp.cme.com/pub/span/data/cme/test/NegativesAlphaFirms/>. Within this folder, you'll find various sample files, and a document called "[FolderHistory](#)" further detailing what is being shown in the sample files, and what has changed in the folder, and when. Printable versions of file and message layouts are available at <http://cme.com/clearing/cm/stan/recordlayouts.html>.

### Report Contract Descriptions

Where possible, CME Clearing will present a uniform contract description format on reports. A list of the reports that will change as a result of the expanded and negative strike price capabilities is included in the NegativesAlphaFirms folder noted above, in spreadsheet [SampleContractDescriptions.xls](#). Here is a brief description of the change:

Old Contract Description Format: **10 YR NOT 21 AUG 07 C 105.50 0709**

Short Product Description <space>  
TCC Clearing Code <space>  
Three-Character Contract Month Representation ("AUG" = August) <space>  
Two-Digit Year <space>  
Put/Call Indicator <space>  
Strike Price <space>  
Underlying Year/Month in YYMM format

New Contract Description Format (sample only, not real): **ROUGH RICE 14 20060615 C -9.2 200607**

Short Product Description <space>  
TCC Clearing Code <space>  
Contract Year/Month/Day in YYYYMMDD format (day only if necessary) <space>  
Put/Call Indicator <space>  
Strike Price (with negative sign preceding it, if necessary) <space>  
Underlying Year/Month/Day in YYYYMMDD format (day only if necessary)

The data that makes up a contract description will always occur in the same order, but these values are not bound by fixed lengths. This means that if you use some type of "screen scraper" application, or parse data from a printed report image, you will likely need to make adjustments to your processes. As always, you are urged to use data files that are available to you via ftp transmission, rather than parsing report data, if possible.

Here's how each file and message format is affected:

Area of Focus	Data Type	Change Overview	To Be Prepared
Printed Report Contract Descriptions	Printed Reports or Report Images	<p>Sorting on reports will not change.</p> <p>The descriptions have been changed to accommodate the possibility of expanded and/or negative strike prices.</p> <p>See further explanation of contract description change below</p>	<p>Firms will have to ensure that they are not extracting positional data from printed images.</p> <p>Staff will have to be trained to scan for slightly different values visually on paper, and electronically on screen.</p> <p><a href="#">Old vs. New Comparison</a></p>
FIXML Trade Messages	MQM Messages	<p>No format changes are necessary to the messages themselves. FIXML inherently supports positive, zero, and non-positive trade prices and strike prices.</p> <p>Negative trade prices and strike prices will have a preceding minus (-) sign.</p>	Trade processing systems must be able to process and format data in conformance with the standard.
FIXML PCS	Batch-Style FIXML File Records	<p>No format changes are necessary. FIXML inherently supports positive, zero and non-positive strike prices.</p> <p>Negative strike prices must have a preceding minus (-) sign.</p>	Firms submitting PCS data must be able to send zero and non-positive strike prices.
FIXML Trade Register	Batch-Style FIXML File Records	<p>No format changes are necessary. FIXML inherently supports both zero and non-positive trade, settlement, and strike prices.</p> <p>Negative trade, settlement, and strike prices will have a preceding minus (-) sign.</p>	Trade matching and point balancing systems must be able to process zero and non-positive trade, settlement, and strike prices.

Area of Focus	Data Type	Change Overview	To Be Prepared										
TREX Trade Messages	MQM Messages, traveling both to and from the Clearing House, and middleware and back office service providers	<p>There is no change to the physical TREX layout, as positions 75 and 100 of the Main Block are already designated as strike and trade price signs, respectively.</p> <p>The SLEDS and Spreads Transaction Special Block (S1) has a provision for a Back Leg Trade Price Sign in position 77. Note that option SLEDS are not currently supported, so SLEDS strike price is not addressed here.</p> <p>As APS confirms are delivered in the FIXML format only, no A8 Special Block consideration is necessary.</p> <p>The overall change for TREX is that the layout previously stated that these fields were "RESERVED FOR FUTURE USE." Now, processing programs should respect any valid signs in these fields.</p>	Firms must be able to handle zero and non-positive trade and strike prices based on the sign fields in the TREX layout.										
Legacy Settlement Price Files	Flat Text File Records	<p>Four new fields will be added to the end of the Settlement Price File layout. Fields are added to the end of the file to be consistent, as a filler byte is not located next to a price in all cases. Blank or (+) means that the price is positive or zero, (-) means that the price is negative.</p> <table><tr><th>Position</th><th>Pertains To</th></tr><tr><td>101</td><td>Range High</td></tr><tr><td>102</td><td>Range Low</td></tr><tr><td>103</td><td>Settlement</td></tr><tr><td>104</td><td>Strike Price</td></tr></table>	Position	Pertains To	101	Range High	102	Range Low	103	Settlement	104	Strike Price	<p>This is a change that all firms using the settlement price file format will have to make, if they are not using the FIXML settlement price file.</p> <p>Sample CME Settlement Price File</p>
Position	Pertains To												
101	Range High												
102	Range Low												
103	Settlement												
104	Strike Price												

Area of Focus	Data Type	Change Overview	To Be Prepared																				
Edit Files	Flat Text File Records	<p>In the "10" (Broker) records, if the firm is alpha-numeric or larger than 3 bytes, then the Firm ID will be located in position 52-57, rather than position 38-40.</p> <p>In the "20" (Firm) records, if the firm is alpha-numeric or larger than 3 bytes, then the Firm ID will be located in position 41-45, rather than position 3-5.</p> <p>Strike Price Sign will be added the "40" records of the Edit file in position 45. Blank or (+) means positive, (-) means non-positive.</p>	<p>This is a change that all firms using this file to load valid contracts will have to make.</p> <p><a href="#">Sample CME Edit File</a></p> <p><a href="#">Sample CBT Edit File</a></p>																				
Large Trader File	Flat Text File Records	<p>The Large Trader strike format will be changed to match that of the CFTC. To indicate a negative strike price value, the last byte of the field should be substituted as follows:</p> <table><thead><tr><th>Last Byte of Actual Strike</th><th>Substitute this Letter</th></tr></thead><tbody><tr><td>1</td><td>J</td></tr><tr><td>2</td><td>K</td></tr><tr><td>3</td><td>L</td></tr><tr><td>4</td><td>M</td></tr><tr><td>5</td><td>N</td></tr><tr><td>6</td><td>O</td></tr><tr><td>7</td><td>P</td></tr><tr><td>8</td><td>Q</td></tr><tr><td>9</td><td>R</td></tr></tbody></table> <p>All other fields should be reported to CME as they are being reported now.</p>	Last Byte of Actual Strike	Substitute this Letter	1	J	2	K	3	L	4	M	5	N	6	O	7	P	8	Q	9	R	<p>This is a change that all firms submitting CME Large Trader data will need to make.</p>
Last Byte of Actual Strike	Substitute this Letter																						
1	J																						
2	K																						
3	L																						
4	M																						
5	N																						
6	O																						
7	P																						
8	Q																						
9	R																						

Area of Focus	Data Type	Change Overview	To Be Prepared						
SPAN Parameter Files	Expanded Format SPAN Parameter Files, XML Format SPAN Parameter Files	<p>The Expanded Format SPAN parameter file already accommodates zero and negative settlement and leg prices and strike prices.</p>	<p>Firms using the Expanded Format SPAN file should be prepared to see minus signs (-) in positions 118 or 119 of the Expanded SPAN "82" records of the parameter files.</p>						
		<p>The "82" record layout for Expanded SPAN is as follows:</p> <table><tr><th>Position</th><th>Pertains To</th></tr><tr><td>118</td><td>Settlement Price Sign</td></tr><tr><td>119</td><td>Strike Price Sign</td></tr></table>	Position	Pertains To	118	Settlement Price Sign	119	Strike Price Sign	<p>Firms using the Expanded SPAN format must also be prepared for negative leg prices on the "Z" records, identified by a possible minus sign (-) in position 78.</p>
		Position	Pertains To						
		118	Settlement Price Sign						
119	Strike Price Sign								
<p>The "Z" record layout for the Expanded SPAN format may also contain a minus sign (-) in position 78, to specify a negative leg price.</p>	<p>Firms using the XML Format of the SPAN parameter files should be prepared to see zero or negative values for settlement prices or strike prices.</p>								
<p>The XML Format SPAN file already accommodates zero and negative settlement prices and strike prices, through field definition.</p>	<p><a href="#">Sample CCL Expanded Format SPAN Parameter File</a></p>								

Area of Focus	Data Type	Change Overview	To Be Prepared								
SPAN Position Files	Standard Format SPAN Position File, Expanded Format SPAN Position File, XML Format Position File	<p>The Standard, Expanded, and XML SPAN Position Files already accommodate negative strike prices.</p> <p>For the Standard and Expanded versions, a minus sign (-) in the Strike Price Sign field means that the strike price is negative. All other values mean that the price is positive. Note that the sign is in different positions, depending on what type of position record you create:</p> <table><tr><th>Position</th><th>Pertains To</th></tr><tr><td>54</td><td>"3" Records (Standard)</td></tr><tr><td>67</td><td>"3" Records, (Expanded Format)</td></tr><tr><td>78</td><td>"5" Records (Expanded Format)</td></tr></table> <p>The XML version of the position file accommodates signed strike prices through field definition.</p>	Position	Pertains To	54	"3" Records (Standard)	67	"3" Records, (Expanded Format)	78	"5" Records (Expanded Format)	<p>Firms using the Standard Format SPAN position file format should be prepared to place a minus sign (-) in position 54 of the file.</p> <p>Firms using the Expanded Format SPAN file should be prepared to place minus signs (-) in positions 67 or 78 of the Expanded SPAN position files, depending on whether the "3" or "5" records are used.</p> <p>Firms using the XML Format of the SPAN parameter files should be prepared to place zero or negative values in strike price fields when necessary.</p>
		Position	Pertains To								
54	"3" Records (Standard)										
67	"3" Records, (Expanded Format)										
78	"5" Records (Expanded Format)										

Sample TREX and FIXML messages can be found at:  
<ftp://ftp.cme.com/pub/span/data/cme/test/NegativesAlphaFirms/SampleConfirmsForNegativesAndAlphaFirms.doc>

Should you have any questions about this Advisory or testing opportunities, please contact CCS at 312-207-2525 or [ccs@cmegroup.com](mailto:ccs@cmegroup.com)