

Advisory Notice

Clearing House

TO: All Firms, Back Office Managers, and Service Providers
FROM: Clearing House Department
ADVISORY #: 06-99
DATE: April 18, 2006
SUBJECT: Zero and Negative Trade, Settlement, and Strike Prices

Please be advised that later this year, CME plans to list products with trade and/or settlement prices that can be positive, zero, or negative, as well as options products whose strike prices can be positive, zero, or negative. These capabilities will also be made available in the clearing system for CBOT products, of course. For example:

- CME cash-settled snowfall futures are an example of futures index products that can have a final settlement price that is positive or zero. In the event that there is no snowfall for a particular location for the duration of trading of that contract, then that contract's final settlement value is zero.
- CME's Non-Farm Payroll economic derivatives, traded as part of CME Auction Markets, is an example of a cash-settled, index-based product whose price may be positive, zero, or negative. The underlying statistic is defined as the change in Non-Farm Payrolls from month-to-month, and hence can be negative, zero or positive. Currently, the statistic is offset by adding a number to it, so that its value is always positive. Once negative prices are allowed, these offsets will no longer be needed, and the statistic will be represented as its true value.
- Option trade prices may reach zero, but they will never go negative. Option strike prices may be positive, zero, or negative for any number of reasons. They may represent
 - either of the products listed above, where the strike price is based on an underlying index, or
 - price differentials between contract months or even two different products.

This Advisory is being sent now so that firms have ample notification that they will need the ability to process these trade, settlement, and strike prices. We expect that many systems and processes have already been programmed with non-positive trade, settlement, and strike prices in mind; this Advisory is a reminder to make sure that all areas of your business are covered.

The messages or files that could be affected, the changes, and the actions you should take are outlined in the following table. Please note that while some formats will not need to change, your system's handling of the actual data *may* need to be adjusted.

We will shortly make available sample messages and data files illustrating these negative or zero trade, settlement and/or strike prices. Specific product specifications will be published as soon as they are available together with schedules for firm testing opportunities.

For more information on the formats described below, call the Clearing House at (312) 207-2525, or visit the following locations online:

For FIXML documentation, see <http://www.cme.com/clearing/cm/stan/fixml6615.html> .

For standard file layout information (TREX layout and Settlement Price, Edit, and Large Trader files), see <http://www.cme.com/clearing/cm/stan/recolayout1013.html> .

For SPAN file layouts, see the SPAN Information Pages at <http://www.cme-ch.com/span/> .

Here are the details:

Area of Focus	Data Type	Change Overview	To Be Prepared
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.
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.

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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 (to be produced later this year).</p>										
Position	Pertains To																						
101	Range High																						
102	Range Low																						
103	Settlement																						
104	Strike Price																						
Edit File	Flat Text File Records	<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>																				
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><tr><th>Last Byte of Actual Strike</th><th>Substitute this Letter</th></tr><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></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>	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>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	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.
		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>The XML Format SPAN file already accommodates zero and negative settlement prices and strike prices, through field definition.</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.								

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>	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)										
		<p>The XML version of the position file accommodates signed strike prices through field definition.</p>									