

Proposed Position Limits for Derivatives
Explanatory Notes on Setting Non-spot-Month Position Limits

A. Introduction

The Commission's January 25, 2011 notice of rulemaking, titled *Position Limits for Derivatives* ("the Rulemaking"), proposes position limits for major physical commodity derivatives. 76 FR 4752, January 26, 2010.

The Rulemaking bases non-spot-month position limits on open interest levels in referenced contracts, a defined term. The Rulemaking uses the same aggregated market open interest value calculation proposed in an earlier rulemaking for major listed energy derivatives. *See* 75 FR 4144, 4153 to 4155, January 26, 2010.

Referenced contracts (the contracts that would be subject to the Rulemaking) include the 28 core referenced futures contracts itemized in proposed regulation 151.2. In addition, per the definition of a "referenced contract," included among referenced contracts are futures, options, and swaps that are – on a futures equivalent basis with respect to a particular core referenced futures contract:

(1) Directly or indirectly linked, including being partially or fully settled on, or priced at a differential to, the price of any core referenced futures contract; or

(2) Directly or indirectly linked, including being partially or fully settled on, or priced at a differential to, the price of the same commodity for delivery at the same location, or at locations with substantially the same supply and demand fundamentals, as that of any core referenced futures contract.

Note: As proposed, the definition of a referenced contract explicitly excludes all basis and commodity index contracts, as those terms are defined in proposed regulation 151.1.

Also, referenced contracts that are calendar and inter-commodity spread contracts would not be used to calculate open interest figures. However, these contracts would be attributed to a trader for position limit compliance purposes.

An example for calculating swap open interest is provided directly in the Rulemaking.

The Commission has proposed regulations that would permit it to gather positional data on physical commodity swaps on a regular basis. See Position Reports for Physical Commodity Swaps, 75 FR 67258, November 2, 2010)). Guidance on calculating swap futures equivalency with respect to a particular core referenced contract is provided in Appendix A to the Commission's proposed Position Reports proposal. 75 FR 67258, at 67269.

B. Relative Size Conversion Factors

The 28 core referenced futures contracts itemized in proposed regulation 151.2 would form the initial basis for the Commission's calculation of open interest for fixing position limits.

The open interest of non-itemized futures, options and swaps that are referenced contracts would be considered on a futures equivalent basis in terms of the corresponding core referenced futures contract itemized in proposed regulation 151.2.

Accordingly, if for example a non-itemized referenced contract trades in a unit size that is different from that contract's corresponding core referenced futures contract, the Commission would use a relative size conversion factor to render the open interest in the non-itemized referenced contract in terms of the contract's corresponding core referenced contract itemized in proposed regulation 151.2.

For example, the NYMEX E-Mini Crude Oil Futures contract, a non-itemized referenced contract, is one-half the size (500 barrels) of the contract's corresponding itemized referenced contract (*i.e.*, the CL contract, which prices 1,000 barrels of light sweet crude oil for delivery at Cushing, Oklahoma). Each E-Mini contract would therefore have a relative size conversion factor of 0.5. For the purpose of calculating the E-Mini contract's open interest, the Commission would multiply the E-Mini contract's open interest by the relative size conversion factor of 0.5, and thereby express the E-Mini contract's open interest in terms that are equivalent to the CL contract's open interest.

C. Delta Adjustments for Options

In addition to performing any needed relative size conversion calculations, the Commission would multiply the open interest in all referenced option contracts by an appropriate delta coefficient for each respective option type, expiration, and strike price combination. For cleared referenced contracts for example, the Commission would use the daily contract delta coefficients that would be provided by a designated contract market or clearing organization.

For example, the Natural Gas Option on Calendar Futures Strip is a non-itemized referenced contract whose open interest figures would be adjusted by both a relative contract size conversion factor and a delta coefficient. The Commission would therefore follow two steps in rendering the open interest in this non-itemized referenced contract in terms of the contract's corresponding core referenced futures contract (*i.e.*, the NG referenced contract listed in proposed regulation 151.2):

- First, the Commission would need to determine the appropriate relative size conversion factor. Since this option contract, when exercised, would result in a position of 12 NYMEX NN futures contracts that price 2,500 MMBtu versus the NG contract's pricing of 10,000 MMBtu, the relative size conversion factor would be 12 (the unadjusted number of NYMEX NN futures contracts that would result if the option is exercised) x 0.25 (the size of the NN contract in terms of the NG contract), which equals 3.

- Second, the open interest in the Natural Gas Option on Calendar Futures Strip would be adjusted by a delta coefficient. To illustrate, a NYMEX NN call option contract at some expiration and strike price could, for example, have a delta coefficient of .3333... or 1/3.
- Assuming an open interest level of 1 Natural Gas Option on Calendar Futures Strip, the open interest calculation is as follows: 12 (the unadjusted number of NYMEX NN futures contracts that would result if the call futures strip is exercised) x .25 (the size conversion factor between an NN and the core referenced NG contract) x .3333... (the assumed NYMEX NN call option delta factor) x 1 (the assumed open interest in the Natural Gas Option on Calendar Futures Strip contract) = 1 NG.

D. From Open Interest in One Referenced Contract to Position Limits

- Step 1 – Calculation of the All-Months-Combined Month-End Open Interest

The Commission would take the open interest figure reported for the last trading day of each month for each referenced contract (month-end open interest). For cleared referenced contracts, for example, the figure would be reported by a designated contract market or a clearing house.

The Commission would next apply the appropriate relative size conversion factor and option delta coefficient to the month-end open interest figures for each referenced contract separately in order to arrive at an open interest figure for each calendar month that is expressed in terms of the contracts' corresponding core referenced contract.

For each calendar month, the Commission would next sum the month-end open interest for all itemized and non-itemized referenced contracts that are in the same commodity complex (*e.g.*, natural gas). The Commission would do this calculation separately for each calendar month of the previous year. This would lead to 12 data points. The Commission would then sum all the 12 combined month-end open interest figures for each referenced contract complex and divide this number by 12. The result would be the average combined month-end open interest figure. This figure is the open interest base that would be used to fix all non-spot-month position limits under the Rulemaking.

- Step 2 – Calculation of the non-spot-month limits

The non-spot-month position limit is 10% of the base open interest figure calculated in Step 1 up to 25,000 contracts with a marginal increase of 2.5% thereafter. Taking the 2010 figures for the NYMEX Light Sweet Crude Oil referenced contract complex for example, the calculation would be $(0.1 \times 25,000) + ([4,243,439] - 25,000) \times 0.025$. The resulting position limit, rounded up to the nearest hundred, would therefore be [108,000] contracts.

E. Illustrative Excel Worksheets 1, 2 and 3

- These worksheets illustrate different aspects of calculating the average combined month-end open interest figure and the application of the (10, 2.5) formula discussed above.
- No referenced contracts that are calendar or inter-commodity spread contracts are included in any of the worksheets. As noted previously, open interest generated by these spread contracts is not used to calculate the average combined month-end open interest figure. However, positions in these spread contracts would be attributed to a trader for the purpose of determining its compliance with any position limit.
- The first worksheet in the Excel spreadsheet, labeled *Reference Contract OI & Limits* contains four points of data:
 - The referenced contract commodity complex
 - The average 2010 all months combined (summed) month-end open interest figure, on a futures equivalent basis in terms of the complex's core referenced contract (size conversion factor applied and delta-adjusted)
 - The non-spot-month position limit under the proposed formula for each of the 28 referenced contract complex (rounded up to the next 100 contracts)
 - The actual proposed non-spot-month limit
- The second worksheet, labeled *Equivalent Open Interest*, contains the following information:
 - The referenced contract complex
 - The listing exchange – with the core referenced contract, and any other contracts on the same exchange as the core referenced contract listed first, followed by all other contracts that are in the same commodity complex
 - The name of the referenced contracts
 - For each of the 12 months, the referenced contract's end-of-month open interest (all tenures combined), on a futures equivalent basis in terms of the core referenced contract (size factor applied and delta-adjusted)
- The third worksheet, labeled *Unadjusted Open Interest*, is similar to the second table. It contains:
 - The referenced contract complex

- The listing exchange – with the core referenced contract, and any other contracts on the same exchange as the core referenced contract listed first, followed by all other contracts that are in the same commodity complex
- The core futures contract equivalency size factor (what we multiply the non-itemized referenced contract's open interest by to adjust for size differences between the core referenced contract and each related contract)
- For each of the 12 months, the referenced contract's end-of-month open interest (all tenures combined), on a futures equivalent basis in terms of the core referenced contract (size conversion factor not applied but delta-adjusted)