

Special Executive Report

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CME GROUP FX PRODUCT ENHANCEMENTS: (1) ELIMINATION OF CONTRARY INSTRUCTIONS REGARDING AUTOMATIC EXERCISE OF AMERICAN-STYLE FX OPTIONS ON TERMINATION DAY, AND (2) DAILY SETTLEMENT PRICES BASED ON VOLUME-WEIGHTED AVERAGE PRICES IN CLOSING RANGE FOR SELECT FX FUTURES

OBJECTIVE OF ENHANCEMENTS: CME Group approved changes to make the expiration process for American style FX (foreign exchange) options even more transparent and remove uncertainty for all market participants. The improved automatic exercise process allows all participants to know their positions and be in a position to hedge risk during liquid, early afternoon U.S. trading hours. Over the past year, the CME Group FX Products team sought and received feedback from a broad range of customers and FCMs, which support a move to real auto-exercise for American-style FX options on futures contracts on the termination date.

TWO-STEP ENHANCEMENTS: First, the exchange is eliminating “contrary instructions” to CME Clearing by American-style FX option buyers on the termination of trading day only. With option buyers not able to elect to exercise out-of-the-money options or not exercise in-the-money options at expiration (*i.e.*, “contrary instructions”) until 7:00 p.m. Central Time (CT), CME Group eliminates the situation where futures contracts are assigned when underlying markets are less liquid and offset hedging is difficult. Market participants have indicated to the exchange that this situation is a major deterrent to OTC (over-the-counter) market use of CME Group American-style FX options on futures. Rule amendments appear in Appendix 1 with additions underlined and deletions bracketed and overstruck.

Please note that these rule amendments to eliminate contrary instructions at options termination are effective immediately for all newly listed American-style exercise FX options on futures contracts. For existing contract months, the elimination of contrary instructions rule amendments on the options termination day are effective beginning with the expiration of the March 2008 and apply to all subsequently deferred contract months. Please note also that buyer’s ability to exercise American-style FX options up until 7:00 p.m., on any other business day except the termination (expiration) day, is unchanged.

Second, to make daily “settlement prices” more robust and market determined, the exchange is changing daily settlement price determination procedures to a volume-weighted average price (“VWAP”) instead of the current provisions of Rule 813 – **SETTLEMENT PRICE** for an average of the CME Globex[®] high and low trade prices (or higher bid, lower offer, where applicable) during the closing range. Therefore, CME Group adopted changes to Rule 813 – **SETTLEMENT PRICE** to allow CME Globex[®] sourced, volume-weighted average price (“VWAP”) calculations to determine daily settlement prices for selected FX futures contracts (Australian dollar, British pound, Canadian dollar, Euro FX, Japanese yen and Swiss franc futures). The closing range for these more actively-traded FX futures will decrease from one-minute to 30 seconds to better represent a 2:00 p.m. price. The amendments to Rule 813 appear in Appendix 2. The exchange will notify market participants at a later date when the Rule 813 amendments will become effective.

Volume-Weighted FX Futures Settlement Prices Details

With elimination of the contrary instructions process, the price at which the American-style FX options are determined to be in-the-money, and automatically exercised, becomes even more important. Therefore, the method for determining daily settlement prices for nearby, most actively traded FX futures contract months will be changed from an average of the high and low sale prices (or higher bid or lower offer, if applicable) in the 60-second "closing range" to a volume-weighted average price ("VWAP"), which utilizes CME Globex® "traded volumes at price" information, over a shorter, 30-second interval.

By switching to volume-weighted average prices ("VWAP") over the 30-second interval (1:59:30 to 1:59:59) for daily FX futures settlement prices, these new settlement prices become more robust by being transaction-based. The more volume traded at a given price during the new 30-second closing range, the more influence that particular price has on the calculation of the settlement price. This method applies rational economic principles to determination of settlement prices. The subsequent section describes in detail the proposed method for determining FX futures settlement prices. In brief, if no transactions occur in the closing range (*i.e.*, no sales) such that there are no VWAP determined settlement prices (under the descriptions labeled "Tier 1"), then the settlement price is determined by the average of the CME Globex bid / ask spreads over the 30-second closing range ("Tier 2"). If no CME Globex bid / offer spreads exist (and no sales), then CME Group Operations staff replicates current settlement procedures to use quote vendor spot rates and forward points to IMM dates to determine the nearby contract synthetic daily settlements. Then, also mirroring current procedures, the previous daily spread differentials, from the nearby futures contract settlement price to the deferred contract months, are used to set all deferred FX futures contract month settlement prices.

Approved New FX Settlement Price Definitions

New Procedures for FX Futures Settlement Prices: Used Each Day for Settlement Price Determination and to Exercise Expiring American-Style FX Options (Initially, applies to the following major FX futures contracts only – AD, BP, CD, EC, JY, SF futures):

Terminate CME Globex trading (in expiring option) at:

- 2:00 p.m. on Friday termination day (rather than the current CME Globex termination time of 4:00 p.m.) and expire the options to the "new" underlying futures settlement price that day determined at 2:00 p.m. (The termination of trading time change is a result of the elimination of the option buyer's right to exercise an out-of-the-money option or not exercise an in-the-money option up until 7:00 p.m., *i.e.*, submission of "contrarian instructions" to CME Clearing to prevent "automatic exercise.")
- Exercise expiring options to a newly defined daily "settlement price" for all American-style FX options. New tiers...
 - a. Changes to CME Rule 813 – **SETTLEMENT PRICE** needed, in effect, tiers of operational procedures. (See approved CME Rule 813 changes in Appendix 2)
 - b. 30 second (closing range) window (1:59:30 to 1:59:59)*
 - c. Tier 1: Volume-weighted average price from CME Globex sales during the 30 second interval, calculated on a real-time basis. However, if less than three trades by the end of the interval, then go to Tier 2 for Globex bid/ask data.** The Tier 1 calculation is analogous to the Tier 1 calculation for the "CME currency fixing price," with the

- added provision that there must be at least three trades for Tier 1 to apply (therefore, for 2, 1 or zero trades in 30 second closing range, then Tier 2 applies).
- d. Tier 2: Calculate the midpoint of the bid/ask spread during the 30 seconds on a real time basis. Sample at least once per second (minimum of 30 observations). Settlement price is the average of the midpoints. For liquid contracts, most of the time settlement prices will be determined at 2:00 p.m. via the Tier 1 procedures. The Tier 2 calculation is analogous to the Tier 2 calculation for the "CME currency fixing price," but with the inputted maximum allowable bid / ask differential value disabled.
 - e. Tier 3: Use over-the-counter (OTC) vendor contributed spot rates and forward points to calculate synthetic futures "settlement price" (via "Operations settlement price programs"). This is essentially what CME Group does now if there are no sales in the 60 seconds before 2:00 p.m., no prior sale during the day, and no standing bids and offers on CME Globex.

Therefore, CME Group will calculate parallel real-time settlement prices based on sales and the bid/ask spreads. Then at 2:00 p.m. print the price based upon sales, if there were any (*i.e.*, 3 or more deals); or print the price based upon bid/ask spreads, if there were not the requisite number of sales. By extension, the OTC based synthetic settlement price will be calculated everyday, also, in the event it is needed (at 2:00 p.m. there are no sales, bids or asks).

* Current closing range is 60 seconds from 1:59:00 to 2:00:00.

** Select simulations indicated current Tier 1 Settlement Prices would apply to EC, JY, BP, CD, SF and AD (by virtue of typically having more than two trades on CME Globex in the 30 second closing range).

Appendix 1.

Proposed Rule Change to Eliminate "Contrary Instructions" on All American-Style FX Options Termination Days Only.

Analogous changes to those below for the Options on Euro Futures are proposed for Rules 251A. Options on British Pound Futures 03.A.1., 252A. Options on Canadian Dollar Futures 03.A.1., 253A. Options on Japanese Yen Futures 03.A.1., 254A. Options on Swiss Franc Futures 03.A.1., 255A. Options on Australian Dollar Futures 03.A., 256A. Options on Mexican Peso Futures 03.A., 257A. Options on Brazilian Real Futures 03.A., 258A. Options on New Zealand Dollar Futures 03.A., 259A. Options on South African Rand Futures 03.A., 260A. Options on Russian Ruble Futures 03.A., 266A. Options on Czech Koruna Futures 03.A., 267A. Options on Hungarian Forint Futures 03.A., 268A. Options on Polish Zloty Futures 03.A., 269A. Options on Israeli Shekel Futures 03.A., 270A. Options on Chinese Renminbi futures 03.A., 271A. Options on Korean Won Futures 03.A., 301A. Options on Euro/ British Pound (Euro/ BP) Cross Rate Futures 03.A., 303A. Options on Euro/ Japanese Yen (EURO/ JY) Cross Rate Futures 03.A., 304A. Options on Euro/ Swiss Franc (Euro/ SF) Cross Rate Futures 03.A., 315A. Options on Euro/ Czech Koruna (Euro/ Koruna) Cross Rate Futures 03.A., 316A. Options on Euro/ Hungarian Forint (Euro/ Forint) Cross Rate Futures 03.A., 317A. Options on Euro/ Polish Zloty (Euro/ Zloty) Cross Rate Futures 03.A., 318A. Options on Chinese Renminbi/ Euro (RMB/ Euro) Cross Rate Futures 03.A., and 319A. Options on Chinese Renminbi/ Japanese Yen (RMB/ Japanese Yen) Cross Rate Futures 03.A.

261A03. EXERCISE ¹

In addition to the applicable procedures and requirements of Chapter 7, the following shall apply to the exercise of option contracts on Euro futures. Both American-style and European-style exercise options on currency futures are available for trading.

261A03.A.1. Exercise of American-Style Options by Buyer ²

An option may be exercised by the buyer on any business day that the option is traded. To exercise an option the clearing member representing the buyer shall present an exercise notice to the Clearing House by 7:00 p.m. Central Time on ~~the~~ any day of exercise except on the termination of trading day.

All Euro options that are in the money³ and have not been liquidated or exercised prior to the termination of trading, shall

¹ Revised April 1998.

² Revised December 1986; February 1990; March 1992; December 1995.

³ An option is in the money if the settlement price of the underlying futures contract at termination lies above the exercise price in the case of a call, or lies below the exercise price in the case of a put.

~~[, in the absence of contrary instructions delivered to the Clearing House by 7:00 p.m. Central Time on the day of expiration by the clearing member representing the option buyer,]~~ be exercised automatically.⁴

Remainder of rule is unchanged.

Appendix 2.

Proposed Changes to Rule 813 – Settlement Price

813. SETTLEMENT PRICE⁵

The settlement price shall be a price consistent with the minimum fluctuations of a commodity. Settlement prices shall be determined each business day for each commodity pursuant to the procedures set forth below. The procedure used to determine the settlement price of a commodity will depend on the product group, level of closing range activity and liquidity, and the bid – ask width and size, if settled to Globex.

1. The time and sales procedure is used when a trade occurs in the closing range (either the last 30 or 60 seconds). The first trade and every subsequent quote (trade, bid, offer) in the closing range are included in the calculation. The midpoint of the high and low quotes is the settlement price. If a midpoint cannot be determined, the settlement price is the price closer to the prior day's settlement price.
2. The last quote procedure is used when no trades occur in the closing range (either the last 30 or 60 seconds). The last valid quote of the day (trade, higher bid or lower offer) is the settlement price. In the event there are no valid quotes during the day, the settlement price will be the prior day's settlement price.
3. The bid-ask midpoint procedure is used for transactions that occur on Globex. The midpoint of the low bid and the high offer of the Globex closing range (either the last 30 or 60 seconds) is the settlement price. If a midpoint cannot be determined, the settlement price is the price closer to the prior day's settlement price.
4. When relevant spread trading information is available, it may also be used to assist in the calculation of settlement prices. (For example, Front and Red Eurodollars may be adjusted for calendar or fly spreads.)
5. In illiquid commodities, where there is no relevant market activity, any applicable market information, such as spot or cash markets, may be used to determine the settlement price.

6. Notwithstanding any of the foregoing and applicable for Australian Dollar, British Pound, Canadian Dollar, Euro, Japanese Yen and Swiss Franc futures contracts initially, the settlement price for the nearby liquid Currency Futures contract month shall equal the volume-weighted average price of sales on CME Globex during the 30-second closing range (usually 1:59:30 to 1:59:59 PM Central Time), provided such volume weighted average price is based upon at least three transactions ("Tier 1"). If less than three transactions or no sales occur in the 30-second closing range, then the settlement price shall be determined by the average of the nearby liquid futures contract month bid and offer spread during the 30-second closing range ("Tier 2"). If a settlement price cannot be determined by procedures given in the previous two sentences, then the settlement price for the nearby liquid Currency Futures contract month shall be determined by referencing as appropriate underlying spot prices and forward points ("Tier 3").

Then, all other Currency Futures contract month settlement prices shall be determined by applying the previous day's settlement price spread differentials as appropriate to the nearby liquid Currency Futures contract month settlement price as determined by the prior three sentences.

- ~~[6]~~ 7. Notwithstanding any of the foregoing, settlement prices for the E-Mini Standard and Poor's 500 Stock Price Index Futures, the E-Mini Standard and Poor's SmallCap 600 Index Futures, the E-Mini Nasdaq 100 Index Futures, the E-mini Three-month Eurodollar futures and the E-Mini Currency Futures contract months shall equal the settlement prices for the corresponding contract months of the Standard and Poor's 500 Stock Price Index Futures, the Standard and Poor's SmallCap 600 Index Futures, the Nasdaq 100 Index Futures, Three-month Eurodollar Futures and the Currency Futures, respectively. Further, the settlement price for the E-mini Five-Year Eurodollar Bundle Futures shall be the average of the settlement price for the underlying Eurodollar futures, rounded to the nearest 0.00001 IMM Index Points⁶
- ~~[7]~~ 8. Options settlements are derived utilizing key market information, such as; outright bids and offers, implied volatility, the underlying futures movement, and relevant spread orders.
- ~~[8]~~ 9. Notwithstanding the above, if a settlement price in any product, as derived by the normal methodology used for that product, is inconsistent with trades, bids or offers in other months during the closing range or with other market information, an Exchange official may establish a settlement price that best reflects the true market valuation at the time of the close.
- ~~[9]~~ 10. For products cleared by the Clearing House on behalf of another exchange, market or Marketplace other than the Exchange, the settlement price shall be determined according to the rules of such entity.
- ~~[40]~~ 11. Notwithstanding the above, in the case of inaccuracy or unavailability of a settlement price from the Exchange, another exchange, market or Marketplace, or if such settlement price would create risk management concerns

⁴ Revised December 1991; December 1995.

⁵ Revised January 1981; March 1981; April 1982; July 1982; September 1989; September 1992; November 1995; November 2000; November 2001.

⁶ Adopted September 1997. Revised September 1999; May 2000; July 2000; June 2003, October 2006.

for the Clearing House, the Clearing House reserves the right to calculate settlement variation using an alternate price determined by the Clearing House⁷

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⁷ Adopted April 2002. Revised June 2003.