

RECEIVED  
C.F.T.C.

2004 AUG -6 PM 1: 59

**cme**   
Chicago Mercantile Exchange

20 South Wacker Drive  
Chicago, IL 60606-7499  
www.cme.com

312/930.1000 *tel*  
312/466.4410 *fax*

August 6, 2004

Ms. Jean A. Webb  
Office of the Secretariat  
Commodity Futures Trading Commission  
Three Lafayette Centre  
1155 21<sup>st</sup> Street, NW  
Washington, DC 20581

RE: Exchange Certification of Rule Amendment regarding Implied Butterfly Spread  
functionality on GLOBEX for Eurodollar Futures  
Submitted per Sec. 5c(c)(1) of the CEA and Regulation Sec. 40.6(a).  
CME Submission # 04-080.

Dear Ms. Webb:

Pursuant to Section 5c(c) of the Commodity Exchange Act ("CEA") and Regulation §40.6 thereunder, Chicago Mercantile Exchange Inc. ("CME" or "Exchange") hereby certifies an amendment to the Rules for GLOBEX matching algorithm to allow implied Butterfly Spread trade in the Eurodollar futures. The Exchange certifies that this action neither violates nor is inconsistent with any provision of the CEA or of the rules thereunder.

The current trading matching algorithm on GLOBEX for Eurodollar futures allows for "implied calendar spread" trading. The electronic matching system is capable of matching an order for a calendar spread against outright orders in the constituent contract months of the calendar spreads. The Exchange will further bolster this type of implied spreading capability by permitting implied "Butterfly Spreads," in addition to the implied calendar spreads.

A Butterfly spread consists of three contract months. Buying a Butterfly spread is equivalent to simultaneously buying one contract in the first of the three contract months in the Butterfly spread, selling two contracts in the second contract month and buying one contract in the third contract month. It is also equivalent to simultaneously buying a calendar spread between the first two contract months and selling a calendar spread between the last two contract months. An implied Butterfly Spread may be consummated by matching an outright Butterfly Spread order against the component outright orders and/or calendar spread orders. The Exchange believes that this arrangement should further improve the efficiency of the electronic market.

The text of the Rule amendment is set forth below, with additions underlined and deletions bracketed and overstruck.

## **CHAPTER 5** **Floor Privileges - Trading Qualifications and Practices**

### ***INTERPRETATION OF RULE 580.— GLOBEX TRADE ALGORITHMS***

#### Pro Rata Allocation Algorithm

The Exchange has determined to use a Pro Rata Allocation Algorithm to match orders in Eurodollar futures contracts entered in the GLOBEX Electronic Trading System. Unless specifically referenced in this Interpretation, all other futures and options contracts, including Eurodollar options, will continue to use the normal matching algorithm based on price and time priority. Eurodollar futures contracts were chosen to use the Pro Rata Allocation Algorithm because they usually trade in a narrow price range, and each price level is represented by size. The Pro Rata Allocation Algorithm operates as follows:

- After the opening, Time Priority is assigned to the first order at a price that betters the market when the order is received (the "TOP order"). Only one buy order and one sell order can have Time Priority at any given time. Orders with Time Priority (TOP orders) are matched first regardless of size.
- An order will lose Time Priority when an order at a better price is entered. Example: An order to buy 50 contracts is entered at 105. This order is the first order in at this price level. Another order comes in and betters the market, buy 25 contracts at 106. The order at the 106 level has Time Priority now and is the TOP order. The market sells off and the bid for 25 contracts at 106 is hit. The bid for 50 contracts at 105 does not regain its Time Priority and will be allocated according to size along with all the other 105 bids.
- After the Time Priority or TOP order is filled, the Pro Rata Allocation Algorithm is applied to the remainder of the resting orders at that price level. The Algorithm will attempt to match the same proportion of each such order. Example: There are orders to buy 10 and 20 contracts at the same price, and neither order has Time Priority. A sell order for 15 contracts at that price is entered. The Algorithm will match the sell order against the buy orders so that 50% of each buy order is matched.
- If the "Initial Allocation" results in a fraction, the Algorithm will "Round Down" or drop the fractional amount. Any contracts still to be allocated after the "Initial Allocation" has run are added to the largest order. If two or more orders have identical quantities and are the largest orders, the Algorithm will allocate remaining contracts equally between the largest orders. If additional unallocated contracts remain, those contracts shall be allocated on the basis of time of entry into the system.

Use of the Pro Rata Allocation Algorithm for Eurodollar futures will start upon the launch of the GLOBEX 2 System.

#### Implied Order Algorithm

The Exchange has determined to use an Implied Order Algorithm to create orders for selected individual contracts, ~~and~~ calendar spreads, and butterfly spreads in Eurodollar futures contracts entered in the GLOBEX Electronic Trading System. For the purpose of this rule interpretation, buying one butterfly spread (butterfly) means simultaneously buying and selling contracts with three different expirations in the following proportion: buying one contract with the most nearby of the three expirations, selling two contracts with the second of the three expirations and buying one contract with the most deferred of the three expirations. Unless specifically referenced in this Interpretation, all other futures and options contracts, will continue to use the Pro Rata Allocation Algorithm. This Implied Order Algorithm operates as follows:

**Ms. Jean A. Webb**

**August 6, 2004**

**Page 3 of 5**

- A "1st Generation Implied In" order for a calendar spread may be derived on the GLOBEX system from actual orders in the individual contracts or legs of the calendar spread. E.g., a buy order for 15 contracts at 95.05 in a nearby Eurodollar futures contract and a sell order for 10 contracts at 95.00 in a deferred Eurodollar futures contract creates a 1st Generation Implied In order to buy 10 calendar spreads at 0.05.
- A "1st Generation Implied Out" order for an individual contract may be derived on the GLOBEX system from (1) actual orders in a calendar spread that includes that individual contract; and (2) actual orders in the other individual contract that comprises the calendar spread. E.g., a buy order for 5 contracts at 95.15 in a nearby Eurodollar futures contract and a sell order for 10 calendar spreads, that include that nearby contract and a deferred contract, at 0.05 creates an Implied Out order to buy 5 contracts in the deferred leg of calendar spread at 95.10.
- A "2nd Generation Implied In" order for a calendar spread may be derived on the GLOBEX system from (1) actual orders in one individual contract of the calendar spread; and (2) 1st Generation Implied Out orders in the other individual contract that comprises the calendar spread.
- A "2nd Generation Implied Out" order for an individual contract may be derived on the GLOBEX system from (1) actual orders in a calendar spread that includes that individual contract; and (2) 1st Generation Implied Out orders in the other individual contract that comprises the calendar spread.
- Implied In orders for calendar spreads and Implied Out orders for an individual contract based on orders for calendar spread and another individual contract shall be for a quantity representing the smaller of the two orders from which the Implied order is derived.
- The GLOBEX system will create 2nd Generation Implied In and Out orders, for matching purposes only, if there are insufficient quantities of actual and 1st Generation Implied In and Out orders to satisfy arriving orders. This may result in a match with 2nd Generation Implied orders at more favorable prices than had previously been available. Second Generation Implied orders will not be disseminated to the marketplace.
- A "1st Generation Implied In" order for a butterfly spread may be derived on the GLOBEX system from (1) actual orders in the three individual contracts or legs of the butterfly spread, e.g. a buy order for 10 contracts at 95.15 in the first of the three contract months, a sell order for 20 contracts at 95.00 in the second of the three contract months, and a buy order for 10 contracts at 94.95 in the last of the three contract months create a 1st Generation Implied In order to buy 10 butterfly spreads at 0.10; (2) actual orders in two calendar spreads, e.g., a buy order for 10 calendar spreads between the first two of the three contract months at 0.15 and a sell order for 10 calendar spreads between the last two of the three contract months at 0.05 create a 1st Generation Implied In order to buy 10 butterfly spreads at 0.10; or (3) actual orders in two individual contracts and a calendar spread, e.g. a buy order for 10 contracts at 95.15 in the first of the three contract months, a sell order for 10 contracts at 95.00 in the second of the three contract months and an actual sell order for 10 calendar spreads between the last two of the three contract months at 0.05 create a 1st Generation Implied In order for 10 butterfly spreads at 0.10.
- A "1st Generation Implied Out" order for an individual contract from a butterfly spread may be created from an actual order for a butterfly spread with (1) an actual order for a calendar spread and an actual order for an individual contract, e.g. a buy order for 10 butterfly spreads at 0.10, a buy order for 10 calendar spreads between the last two of the three contract months at 0.05, and a buy order for 10 contracts in the second of the three contract months at 95.00 create a 1st Generation Implied Out buy order for 10 contracts in the nearby month at 95.15; or (2) actual orders for two of the three individual contract months, e.g. a buy order for 10 butterfly spreads at 0.10, a buy order for 20 contracts in the second of the three contract months at 95.00 and a sell order for 10 contract in the last of the three contract months at 94.95 create 1st Generation Implied Out buy order for 10 contracts in the nearby month at 95.15. A "1st Generation Implied Out" order for a calendar spread from a butterfly spread may be created from an actual order for a butterfly spread with (1) an actual order for a calendar spread, e.g. a buy order for 10 butterfly spreads at 0.10, a buy order for 10 calendar spreads between the last two of the three contract months at 0.05 create a 1st Generation Implied Out buy order for 10 calendar spreads between the first two of the three contract months at 0.15; or (2) actual orders for two of the three individual contract months, e.g. a buy order for 10 butterfly spreads at 0.10, a buy order for 10 contracts in the second of the three contract months at 95.00 and a sell

order for 10 contract in the last of the three contract months at 94.95 create 1st Generation Implied Out buy order for 10 calendar spreads between the first two of the three contract months at 0.15.

- Note that an Implied Out order for the second of the three contract months from a butterfly spread is for two contracts. These two contracts may have different implied prices, e.g. a buy order for 1 butterfly spread at 0.15, a sell order for 1 contract in the first of the three contract months at 95.15 and a sell order for 1 contract in the last of the three contract months at 94.95 creates implied orders in the second of the three contract months to sell 1 contract at 95.00 and 1 contract at 94.95. Regardless of whether the implied prices for the two contracts are identical, the trade can only occur if both contracts can be matched opposing orders. In the event an opposing order exists for one of the two contracts in the second leg of butterfly spread, an Implied Out order for the remainder may be created.

- A "2nd Generation Implied In" order for a butterfly spread may be derived on the GLOBEX system from a combination of actual orders in the individual contracts and 1st Generation Implied Out orders from calendar spreads for the remaining leg(s) in the butterfly spread.

- A "2nd Generation Implied out" order for an individual contract from a butterfly spread may be derived on the GLOBEX system from an actual order for a butterfly spread and a combination of actual and implied orders in the individual contracts and/or calendar spreads.

- The GLOBEX system will disseminate 1st Generation Implied In orders for butterfly spreads and 1st Generation Implied Out orders for the first and the last of the three contract months from a butterfly spread order. 1st Generation Implied Out orders for the second of the three contract months from a butterfly spread order are not disseminated due to the fact that such orders can only be filled if both contracts for each spread can be matched to opposing orders. 2nd Generation Implied orders are created for matching purpose only and are also not disseminated.

- Implied In and Implied Out orders created by the Implied Order Algorithm shall be processed per the Pro Rata Allocation Algorithm described above, except that

1. Implied orders shall not be granted Time Priority or considered the TOP order;

2. In the event that contracts remain to be allocated after the Initial Allocation, as described in the Pro Rata Allocation Algorithm above, and two or more orders have identical quantities and are the largest orders, allocations shall be made to Implied orders only after allocation to actual orders is complete. Allocations to Implied orders shall be made on the basis of maturity of the contract(s) where nearby contracts receive priority over deferred contracts.

- Market orders, that are entered into the GLOBEX System where the Implied Order Algorithm is effective, shall be converted into limit orders and filled at the best available price from actual orders or 1st Generation Implied orders. If the quantity of the market order exceeds the quantity of opposite actual and 1st Generation Implied orders, GLOBEX will create, and allocate the remaining contracts to, 2nd Generation Implied orders. Allocations to Implied orders shall be made on the basis of maturity of the contract(s) where nearby contracts receive priority over deferred contracts. Any part of such market order that is not filled at the limit price or better shall remain as a resting order at such limit price until filled or cancelled.

- Stop limit orders, that are entered into the GLOBEX System where the Implied Order Algorithm is effective, are activated and placed into the order book when the order's specified stop price is traded, at which time the order may be executed at the specified limit price or better. Such stop limit orders are initially allocated to actual and 1st Generation Implied orders. If the quantity of the stop limit order exceeds the quantity of opposite actual and 1st Generation Implied orders, GLOBEX will create, and allocate the remaining contracts to, 2nd Generation Implied orders. Allocations to Implied orders shall be made on the basis of maturity of the contract(s) where nearby contracts receive priority over deferred contracts. Any part of such stop limit order that is not filled at the limit price or better shall remain as a resting order at such limit price until filled or cancelled.

*[The remainder of the chapter remains unchanged.]*

**Ms. Jean A. Webb**  
**August 6, 2004**  
**Page 5 of 5**

The Exchange intends to implement the implied Butterfly Spread trading capability in September 2004. The exact date of the implementation will be communicated to the Commission upon determination.

Please do not hesitate to contact Richard Co at (312)930-3227 or rco@cme.com if any questions arise during the review of this submission. Please reference our CME Submission #04-080 on all future correspondence for this submission.

Sincerely,

A handwritten signature in black ink, appearing to read "John W. Labuszewski". The signature is fluid and cursive, with a large initial "J" and "L".

John W. Labuszewski, Director  
Research & Product Development

CC: Mr. David Van Wagner, Mr. Clarence Sanders  
CFTC Division of Trading and Markets