



Christopher Bowen
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October 31, 2014

VIA ELECTRONIC PORTAL

Christopher J. Kirkpatrick
Office of the Secretariat
Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, N.W.
Washington, DC 20581

**RE: CFTC Regulation 39.5(b) Notification of the Acceptance of the USD Malaysian Palm Olein Calendar Swap (Cleared Only) Contract for Clearing.
CME Submission No. 14-254**

Dear Mr. Kirkpatrick:

The Clearing House Division of Chicago Mercantile Exchange Inc. (“CME Clearing”), a registered derivatives clearing organization (“DCO”), is notifying the Commodity Futures Trading Commission (“CFTC” or “Commission”) that it is accepting the listing of USD Malaysian Palm Olein Calendar Swap (Cleared Only) (the “Contract”) for clearing beginning at 6:00 p.m. on Sunday, November 2, 2014 for trade date Monday, November 3, 2014.

The Contract’s name, code, and product rule chapter are as follows:

| Swap Name | Code | Rule Chapter |
|---|------|--------------|
| USD Malaysian Palm Olein Calendar Swap (Cleared Only) | OPS | 204B |

Eligibility to Clear

Regulation 39.5(b)(3)(i): “A statement that the derivatives clearing organization is eligible to accept the swap, or group, category, type, or class of swaps for clearing and describes the extent to which, if the Commission were to determine that the swap, or group, category, type, or class of swaps is required to be cleared, the derivatives clearing organization will be able to maintain compliance with section 5b(c)(2) of the Act.”

As contemplated by Commission Regulation 39.5(a)(1), the Contract is a subset of one or more groups, categories, types, or classes of swaps that CME Clearing already accepts for clearing. In this regard, CME Clearing currently accepts for clearing physical-commodity calendar swaps that financially-settle to commercially-acceptable, publicly-accessible and timely disseminated price series. These swaps include the following products:

- CME USD Malaysian Crude Palm Oil Calendar Swap (CPC)
- CBOT Wheat Calendar Swap (WCS)
- CBOT Corn Calendar Swap (CCS)
- CBOT Soybean Calendar Swap (SNS)
- CBOT KC HRW Wheat Calendar Swap (KWS)

For the above reasons, and pursuant to Commission Regulation 39.5(b)(3)(i), CME Clearing states that it is eligible to accept the Swap Contracts for clearing.

Statements and Information (Product Execution and Clearing)

Regulation 39.5(b)(3)(ii) – “A statement that includes, but is not limited to, information that will assist the Commission in making a quantitative and qualitative assessment of the following factors:”

“(A) The existence of significant outstanding notional exposures, trading liquidity, and adequate pricing data”

“(B) The availability of rule framework...”

Regulation 39.5(b)(3)(iii) – “Product specifications, including copies of any standardized legal documentation, generally accepted contract terms, standard practices for managing any life cycle events associated with the swap, and the extent to which the swap is electronically confirmable”

Regulation 39.5(b)(3)(v) – “Pricing sources, models, and procedures, demonstrating an ability to obtain sufficient price data to measure credit exposures in a timely and accurate manner, including any agreements with clearing members to provide price data and copies of executed agreements with third-party price vendors, and information about any price reference index used, such as the name of the index, the source that calculates it, the methodology used to calculate the price reference index and how often it is calculated, and when and where it is published publicly”

Statement on Outstanding Derivatives Notional Exposure

CME Clearing is not aware of any sufficiently precise data on the notional size of OTC derivatives transactions in Malaysian palm olein. The primary risk management and price discovery tool for palm oil and palm oil products is the Bursa Malaysia Derivatives Berhad FPCO futures contract (the “BMDB Contract”), which covers the underlying feedstock for palm olein, which is crude palm oil. The BMDB Contract, however, is an imperfect cross hedge, and much Malaysian palm olein is hedged in the OTC market based on price assessments produced by Thompson Reuters. In the absence of directly on point data, a good way to estimate the maximum commercial OTC market in Malaysian palm olein is to measure the size of Malaysian palm olein production.

Below is monthly Malaysian palm olein production (1,000,000 metric tons) over the past three calendar years (Source: Malaysian Palm Oil Board: <http://bepi.mpob.gov.my/index.php/statistics/production/125-production-2014.html>).

| | 2011 | 2012 | 2013 | AVERAGE |
|-----|-------|-------|-------|----------------|
| Jan | 0.742 | 0.876 | 0.883 | 0.834 |
| Feb | 0.637 | 0.815 | 0.764 | 0.739 |
| Mar | 0.863 | 0.689 | 0.910 | 0.821 |
| Apr | 0.910 | 0.616 | 0.883 | 0.803 |
| May | 0.950 | 0.671 | 0.865 | 0.829 |
| Jun | 0.967 | 0.845 | 0.836 | 0.883 |
| Jul | 1.056 | 0.815 | 0.940 | 0.937 |
| Aug | 0.981 | 0.663 | 0.814 | 0.819 |
| Sep | 0.921 | 0.719 | 0.922 | 0.854 |
| Oct | 1.022 | 0.932 | 0.988 | 0.981 |

| | | | | |
|----------------|--------------|--------------|--------------|--------------|
| Nov | 0.958 | 0.957 | 0.881 | 0.932 |
| Dec | 0.993 | 0.942 | 0.890 | 0.942 |
| AVERAGE | 0.917 | 0.795 | 0.881 | 0.864 |

With average monthly Malaysian production at 0.864 million metric tons and with an average price of \$977.88 per metric ton over the past three years, the upper end of the monthly commercial Malaysian palm olein OTC market is around \$844.9 million.

Statement on Derivatives Trading Liquidity

The Contract’s settlements will be based on Thompson Reuters Malaysian Palm Olein assessments. Thompson Reuters is the leading provider of cash market olein price data in Malaysia. An average day includes cash market TRANSACTED VALUES of between 5,000 and 50,000 metric tons.

Statement on Pricing Data

The Exchange uses Thomson Reuters as a third-party price reference in connection with determining daily and final settlement prices for the Contract. Thomson Reuters is one of the major price-reporting services used in the OTC market for pricing palm oil related financial instruments, and the methodology utilized by Thomson Reuters is well-known in the palm industry. Thomson Reuters has a long-standing reputation in the palm industry for price benchmarks that are fair and representative of cash market activity. The Chicago Mercantile Exchange (CME) is party to a licensing agreement with Thomson Reuters to utilize their pricing data for settlement purposes. Also, CME included an Information Sharing arrangement in the licensing agreement that allows Market Regulation to request and see the BIDS/OFFERS/TRANSACTIONS used to make assessments on any given assessment day. Such information shall be retained in strict confidence under the terms of the Licensing Agreement.

Thomson Reuters publishes daily assessments for delivery during the first three months and subsequent eight quarters for palm olein. These assessments are reported under the following codes:

| |
|-----------------|
| RIC Code |
| POL-MYRBD-M1 |
| POL-MYRBD-M2 |
| POL-MYRBD-M3 |
| POL-MYRBD-Q1 |
| POL-MYRBD-Q2 |
| POL-MYRBD-Q3 |
| POL-MYRBD-Q4 |
| POL-MYRBD-Q5 |
| POL-MYRBD-Q6 |
| POL-MYRBD-Q7 |
| POL-MYRBD-Q8 |

Pricing data for the Contract will be readily available on the CME Group Website with data over the past seven days free and older data available for a modest fee (<http://www.cmegroup.com/market-data/settlements/>).

Statement on Swap Product Rule Framework

At this time, the Contract will be available for clearing only. The clearing framework is discussed further below and in the referenced appendixes to this submission.

Swap Product Specifications

CME Rulebook, which includes the cleared product's specifications, is being adopted in a separate submission and is set forth herein as Appendix 1-A. The product tenors for the Swaps are as follows:

| Swap Name | Code | Tenors | First Listed Month |
|---|-------------|-----------------------------|---------------------------|
| USD Malaysian Palm Olein Calendar Swap (Cleared Only) | OPS | Up to 23 Consecutive Months | Dec 2014 |

Pricing Sources, Models and Procedures

The Contract, like the CME USD Malaysian Crude Palm Oil Calendar Swap (Cleared Only) contract and all of the CBOT grain calendar swap contracts, has a final settlement that is based on the monthly average of daily cash market prices for the underlying price reference.

The methodology Reuters follows for palm olein assessments is consistent with assessments used for settlements in many other futures and swaps markets.

Methodology:

- Reuters conducts a "Price Discovery" methodology and reaches out to the breadth of the olein market to make assessments at stated timestamps. The Thomson Reuters assessment team interacts with the entire Malaysian palm olein market and covers as broad a spectrum of the industry as possible on a daily basis.
- On a daily basis, two sets of prices are assessed, time stamped 12:30 pm and 6:00 pm (Malaysia time). This reflects the midday and closing times for the benchmark Bursa Malaysia palm oil futures. Palm olein assessments, like most Malaysian palm olein trade, are in U.S. Dollars.
- Pricing for these instruments will follow the sequence of market holidays observed in Malaysia. Where there is a national holiday in Malaysia, Thomson Reuters will not publish a price.
- If Thomson Reuters discovers an error in procedures applied to generate the pricing for a given day, it will change the price and issue a correction notification via news story at the earliest opportunity.
- Rollover dates for Malaysian RBD palm olein is after the 15th of each month, following the Bursa Malaysia crude palm oil futures schedule. If that falls on a weekend or a holiday, it will be the next working day.
- The assessments will be based on a daily price discovery process in which Thomson Reuters engages market participants from a broad spectrum of the industry to obtain BIDS/OFFERS/TRANSACTIONED VALUES for palm olein.
- Thomson Reuters will assess the first three months and subsequent eight quarters. The 3rd forward month is among the most active.

- The BIDS/OFFERS in addition to TRANSACTED VALUES are accepted into the assessment process. A reporting firm that reports their BIDS and OFFERS at more than \$10.00 per metric ton apart are not used for assessment.
- The assessments are based on a highest bid/lowest offer principle and the assessed value for the day will be the simple average of the two.

In addition to Thomson Reuters' methodology, the Exchange has entered into an information sharing agreement with Thomson Reuters, which gives the Market Regulation Department, as part of their surveillance responsibilities, the ability to request and receive the raw underlying data used to make a daily assessment.

Statements and Information (Product Clearing)

Regulation 39.5(b)(3)(ii) – “A statement that includes, but is not limited to, information that will assist the Commission in making a quantitative and qualitative assessment of the following factors:”

“(B) The availability of rule framework, capacity, operational expertise and resources, and credit support infrastructure to clear the contract on terms that are consistent with the material terms and trading conventions on which the contract is then traded”

“(C) The effect on the mitigation of systemic risk, taking into account the size of the market for such contract and the resources of the derivatives clearing organization available to clear the contracts”

“(D) The effect on competition, including appropriate fees and charges applied to clearing”

“(E) The existence of reasonable legal certainty in the event of the insolvency of the relevant derivatives clearing organization or one or more of its clearing members with regard to the treatment of customer and swap counterparty positions, funds, and property”

Regulation 39.5(b)(3)(iv) – “Participant eligibility standards, if different from the derivatives clearing organization’s general participant eligibility standards”

Regulation 39.5(b)(3)(vi) – “Risk management procedures, including measurement and monitoring of credit exposures, initial and variation margin methodology, methodologies for stress testing and back testing, settlement procedures, and default management procedures”

Regulation 39.5(b)(3)(vii) – “Applicable rules, manuals, policies, or procedures”

Statement on Clearing Rule Framework

In general, the clearing rule framework governing the clearing of the Contract can be found in Chapter 8 (Clearing House and Performance Bonds) of the CME Rulebook. Chapter 8 of the CME Rulebook is enclosed as Appendix 1-C. Also relevant to the rule framework is the CME Clearing House Manual of Operations, a copy of which is enclosed as Appendix 2-B and designated for confidential treatment.

Statement on Operational Expertise, Resources, and Credit Support Infrastructure

The document entitled CME Clearing Financial Safeguards contains information regarding CME Clearing's capacity, expertise, resources and system of financial safeguards. A copy of that document is enclosed as Appendix 1-D.

Statement on the Mitigation of Systemic Risk

As a central counterparty, CME Clearing interposes itself between counterparties to the Contract (and other derivatives products) that it clears, becoming the buyer to every seller and the seller to every buyer. For each swap that it clears, CME Clearing provides all clearing house services, including a mark-to-market function. Depending upon the particular asset class, CME Clearing may standardize contract-critical dates (e.g., start dates, last trade dates, expiry dates) and other contract terms. This may enable customers who hold positions to liquidate or to adjust positions simply by buying back or selling the relevant contracts.

The benefits associated with clearing physical-commodity swaps are considerable and include:

Centralized clearing – Clearing physical-commodity swaps through CME Clearing allows market participants to free up counterparty credit lines. The mark-to-market process employed by CME Clearing enhances customer risk management;

Operational efficiencies – Centralized clearing of swaps reduces operational burdens in several ways. Standardization and centralized clearing enables consolidation of collateral management and cash flows and eliminates the need for novations or tear-ups; and

Ease of position adjustment – In non-cleared markets, the only means to completely eliminate the risk of a swap is to (i) enter into a tear-up agreement with the swap counterparty, or (ii) enter into a novation (i.e., find another entity willing to assume its side of the swap). In either case, the tearup or the novation must be approved by the bilateral swap counterparty. For most asset classes, central clearing may be used to offset by a contra trade.

As further described in the enclosed CME Clearing Financial Safeguards (Appendix 1-D) and as reflected in the enclosed Clearing House Manual of Operations (Appendix 2-B, designated for confidential treatment), CME Clearing has the necessary resources available to clear the Swaps. With respect to the margining of the Swaps, please see document entitled CME SPAN, which is enclosed as Appendix 1-E.

Statement on Competition and Appropriate Fees and Charges

CME Clearing's margin and guaranty fund computations, fees and charges are appropriately set and account for the risk brought to the clearinghouse.

Statement on Legal Certainty and Insolvency

The bankruptcy of a DCO is governed by subchapter IV of Chapter 7 of the U.S. Bankruptcy Code (11 U.S.C. §§ 761-767), and by Part 190 (Bankruptcy) of the Commission's regulations. Also relevant in the event that CME Clearing were to enter into bankruptcy proceedings is CME Rule 818 (Close-Out Netting) included in Chapter 8 (Clearing House and Performance Bonds) of the CME Rulebook. CME Rule 818 (Close-Out Netting) is included in CME Rulebook Chapter 8 (enclosed as Appendix 1-C).

The bankruptcy of a clearing member that is a U.S. futures commission merchant ("FCM") would be governed by subchapter IV of Chapter 7 of the U.S. Bankruptcy Code (11 U.S.C. §§ 761-767) and Part 190 (Bankruptcy) of the Commission's regulations. If an FCM is registered as a broker-dealer, certain aspects of its insolvency proceeding may also be governed by the Securities Investor Protection Act. For further details regarding the legal certainty provided under the relevant U.S. insolvency laws, please see CME Clearing Financial Safeguards, enclosed as Appendix 1-D.

Participant Eligibility Standards

Clearing member participation standards are set forth in the following documents: (i) Requirements for Clearing Memberships and (ii) Clearing Membership Handbook. These documents are enclosed in Appendix 1-F.

Risk Management, Rules, Policies and Procedures

Matters related to risk management and applicable rules, manual, policies and procedures are specifically discussed in CME Clearing's Annual Compliance Report (Fiscal Year 2013), which is enclosed in Appendix 2-C and designated for confidential treatment.

Please see discussion above and the following documents:

CME Rulebook Chapter 8 (Appendix 1-C);

CME Clearing House Manual of Operations (Appendix 2-B, designated for confidential treatment);

CME Clearing Financial Safeguards (Appendix 1-D); and

CME SPAN (Appendix 1-E).

Communication to Members Regarding this Submission

Regulation 39.5(b)(3)(viii) – “A description of the manner in which the derivatives clearing organization has provided notice of the submission to its members and a summary of any views on the submission expressed by the members (a copy of the notice to members shall be included with the submission.”

CME Clearing has posted this submission (absent confidential materials) on the CME website at <http://www.cmegroup.com/market-regulation/rule-filings.html>.

As set forth above, CME Clearing hereby notifies the Commission that it will be accepting the Contract for clearing. CME Clearing is accepting the Contract for clearing pursuant to this submission, in accordance with the requirements of CFTC Regulation 39.5(b).

If you require any additional information regarding this action, please contact me at 212-299-2200 or via e-mail at Christopher.Bowen@cmegroup.com.

Sincerely,

/s/ Christopher Bowen
Managing Director and Chief Regulatory Counsel

Enclosures:

Appendix 1-A: Chapter 204B

Appendix 1-B: Thomson Reuters Methodology (attached under separate cover) (designated for confidential treatment)

Appendix 1-C: CME Rulebook Chapter 8 (Clearing House and Performance Bonds) (attached under separate cover)

Appendix 1-D: CME Clearing Financial Safeguards (attached under separate cover)

Appendix 1-E: CME SPAN (attached under separate cover)

Appendix 1-F: Requirements for Clearing Memberships and Clearing Membership Handbook (attached under separate cover)

Appendix 1-G: Position Limit, Position Accountability and Reportable Level Table in Chapter 5 of the CME Rulebook (attached under separate cover)

Appendix 2-A: Licensing agreement between Thomson Reuters and CME (designated for confidential treatment)

Appendix 2-B: CME Clearing House Manual of Operations (designated for confidential treatment)

Appendix 2-C: CME Clearing's Annual Compliance Report, Fiscal Year 2013 (designated for confidential treatment)

APPENDIX 1-A

Chapter 204B USD Malaysian Palm Olein Calendar Swap (Cleared Only)

204B00. SCOPE OF CHAPTER

This chapter is limited in application to the clearing of USD Malaysian Palm Olein Calendar Swaps, where the parties to the transaction are “eligible contract participants” as defined in Section 1a(18) of the Commodity Exchange Act. The USD Malaysian Palm Olein Calendar Swaps is listed by CME for clearing-only. Although the specifications for cleared USD Malaysian Palm Olein Calendar Swaps are set forth in this chapter, and the position rules applicable to USD Malaysian Palm Olein Calendar Swaps are set forth in Chapter 5, the USD Malaysian Palm Olein Calendar Swaps is not traded on, nor is it traded subject to the rules of, CME in its capacity as a designated contract market. Clearing members that clear USD Malaysian Palm Olein Calendar Swaps are subject to rules generally applicable to clearing members in Chapter 4 (Enforcement of Rules), Chapter 6 (Arbitration), Chapter 7b (Delivery Facilities and Procedures), Chapter 8 (Clearing House and Performance Bonds), and Chapter 9 (Clearing Members), as applicable. The clearing and settlement of transactions in USD Malaysian Palm Olein Calendar Swaps shall also be subject to the provisions of Chapter 8-F of the CME Rulebook (Over-the-Counter Derivative Clearing).

204B01. CONTRACT SPECIFICATIONS

204B01.A. Unit of Clearing

The unit of clearing shall be 25 metric tons.

204B01.B. Hours for Clearing Entry

The Exchange shall determine the hours during which USD Malaysian Palm Olein Calendar Swaps may be submitted to the Clearing House. Positions shall be initiated or closed out using off-exchange transactions.

204B01.C. Minimum Price Increments

Minimum price fluctuations shall be in multiples of USD \$0.25 per metric ton which shall equal USD \$6.25 per contract. Contracts shall not be made on any other price basis.

204B01.D. Months Cleared

Clearing of USD Malaysian Palm Olein Calendar Swaps is regularly conducted in all 12 months, but shall be permitted in the current delivery month and any succeeding months. The number of months in which clearing may occur shall be at the discretion of the Exchange.

204B01.E. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

204B01.F. Last Day of Clearing

The last day of clearing of USD Malaysian Palm Olein Calendar Swaps deliverable in the current delivery month shall be the final settlement day as prescribed in Rule 204B05.

204B01.G. Liquidation during the Delivery Month

After clearing of USD Malaysian Palm Olein Calendar Swaps in the current delivery month has ceased, in accordance with Rule 204B01.F. of this chapter, outstanding contracts for such delivery shall be liquidated by cash settlement as prescribed in Rule 204B02.

204B02. CASH SETTLEMENT

Final settlement under these rules shall be on the final settlement day (as described in Rule 204B05) and shall be accomplished by cash settlement. Clearing members holding open positions in USD Malaysian Palm Olein Calendar Swaps at the time of termination of clearing shall make payment to and receive payment through the Clearing House in accordance with normal variation settlement procedures based on a settlement price equal to the final settlement price (as described in Rule 204B03.).

204B03. FINAL SETTLEMENT PRICE AND DAILY SETTLEMENT DURING THE LAST MONTH OF TRADING

The final settlement price shall be determined on the final settlement day. The final settlement price shall be the cumulative average of each Thomson Reuters "Malaysia RBD Palm Olein" third forward month closing time assessment for each business day of the contract month rounded to the nearest \$0.25.

For example, final settlement for a January Malaysian Palm Olein Calendar Swap would be the cumulative average of the daily assessment prices for the third forward Thomson Reuters Malaysia RBD Palm Olein assessment during the month of January, which in this example will comprise half of the March assessment and half of the April assessment, with the month roll determined by the Thomson Reuters listing and expiration cycle. These daily settlement prices are rounded to the nearest \$0.25.

Daily settlement during the last month of clearing shall be the cumulative average of each Thomson Reuters Malaysia RBD Palm Olein third forward month closing time assessment weighting the current day's settlement price across each remaining clearing day and rounded to the nearest \$0.25.

Settlement prices shall be generated each CME business day using the most recent available Thomson Reuters Malaysia RBD Palm Olein values. However, any settlement prices generated on CME business days when Thomson Reuters does not publish a Malaysia RBD Palm Olein assessment will not be counted toward final settlement. Additionally, there will be no daily settlement prices generated on non-CME business days that are Thomson Reuters Malaysia RBD Palm Olein assessment days, but the Thomson Reuters Malaysia RBD Palm Olein assessments generated on such days will count toward final settlement and daily settlement during the last month of clearing.

204B04. DAILY SETTLEMENT PRICE

Daily settlement other than settlement on the final settlement day or during the last month of clearing (as described in Rule 204B03) shall be the Thomson Reuters Malaysia RBD Palm Olein third forward month from the swap month assessment that day rounded to the nearest \$0.25.

Daily settlement prices shall be generated each business day the CME is open using the most recent available Thomson Reuters values.

204B05. FINAL SETTLEMENT DAY

The final settlement day shall be on the last CME business day of the swap contract month. However, should there be a Thomson Reuters Malaysia RBD Palm Olein assessment during the swap contract month that follows the last CME business day of the swap contract month, then final settlement shall be on the first CME business day of the month following the swap contract month.

204B06. DISPUTES

All disputes between interested parties may be settled by arbitration as provided in the Rules.

204B07. DISCLAIMER

NEITHER CHICAGO MERCANTILE EXCHANGE, INC. ("CME") ITS AFFILIATES NOR THOMSON REUTERS GUARANTEES THE ACCURACY OR COMPLETENESS OF THE THOMSON REUTERS PRICE ASSESSMENT OR ANY OF THE DATA INCLUDED THEREIN. CME, ITS AFFILIATES AND THOMSON REUTERS MAKE NO WARRANTIES, EXPRESS OR IMPLIED, AS TO THE RESULTS TO BE OBTAINED BY ANY PERSON OR ENTITY FROM USE OF THE THOMSON REUTERS PRICE ASSESSMENT, TRADING AND/OR CLEARING BASED ON THE THOMSON REUTERS PRICE ASSESSMENT, OR ANY DATA INCLUDED THEREIN IN CONNECTION WITH THE TRADING AND/OR CLEARING OF THE CONTRACT, OR, FOR ANY OTHER USE. CME, ITS AFFILIATES AND THOMSON REUTERS MAKE NO WARRANTIES, EXPRESS OR IMPLIED, AND HEREBY DISCLAIM ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE WITH RESPECT TO THE THOMSON REUTERS PRICE ASSESSMENT OR ANY DATA INCLUDED THEREIN. WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT SHALL CME, ITS AFFILIATES OR THOMSON REUTERS HAVE ANY LIABILITY FOR ANY LOST PROFITS OR INDIRECT, PUNITIVE, SPECIAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS), EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES.

APPENDIX 1-B

**Thomson Reuters Methodology
(Confidential Treatment Requested)**

(attached under separate cover)

APPENDIX 1-C

**CME Rulebook Chapter 8
Clearing House and Performance Bonds**

(attached under separate cover)

APPENDIX 1-D

CME Clearing Financial Safeguards

(attached under separate cover)

APPENDIX 1-E

CME SPAN

(attached under separate cover)

APPENDIX 1-F

Requirements for Clearing Memberships and Clearing Membership Handbook

(attached under separate cover)

APPENDIX 1-G

**Position Limit, Position Accountability and Reportable Level Table in
Chapter 5 of the CME Rulebook**

(attached under separate cover)

APPENDIX 2-A

Licensing Agreement between Thomson Reuters and CME

(Confidential Treatment Requested)

(attached under separate cover)

APPENDIX 2-B

CME Clearing House Manual of Operations

(Confidential Treatment Requested)

(attached under separate cover)

APPENDIX 2-C

CME Clearing's Annual Compliance Report, Fiscal Year 2013

(Confidential Treatment Requested)

(attached under separate cover)

**CHAPTER 8
CLEARING HOUSE AND PERFORMANCE BONDS****GENERAL**

- 800. CLEARING HOUSE**
- 801. MANAGEMENT**
- 802. PROTECTION OF CLEARING HOUSE**
 - 802.A. Default by Clearing Member or Other Participating Exchanges**
 - 802.B. Satisfaction of Clearing House Obligations**
 - 802.C. Application of Funds to Avoid Clearing House Insolvency**
 - 802.D. Utilization of Remaining Base Collateral of Defaulted Clearing Member; Restoration of Funds Following Final Determination of Losses**
 - 802.E. Rights of Exchange for Recovery of Loss**
 - 802.F. Guaranty Fund Contributions to be Restored**
 - 802.G. Default Management Across Account Classes**
 - 802.H. Base Cooling Off Period and Multiple Defaults**
- 803. LIMITATION OF LIABILITY**
- 804. SUBSTITUTION**
- 805. OPEN POSITIONS**
- 806. OFFSET PROCESS**
- 807. OPEN LONG POSITIONS DURING DELIVERY MONTH**
- 808. PROCEDURES FOR TRADE SUBMISSION ON CME CLEARPORT**
- 809. TRADE DATA PROCESSING SYSTEM**
 - 809.A. Trade Data**
 - 809.B. Matched and Unmatched Trades**
 - 809.C. Trade Register and Clearing Reports**
 - 809.D. Reconciliation of Outtrades**
- 810. FALSE ENTRIES ON CLEARING MEMORANDA**
- 811. POSITION CHANGE DATA**
- 812. FINAL SETTLEMENT PRICE**
- 813. DAILY SETTLEMENT PRICE**
- 814. SETTLEMENT VARIATION**
- 815. THIRD PARTY EXECUTION PLATFORMS FOR SWAPS**
- 816. GUARANTY FUND DEPOSIT**
- 817. LIQUIDITY FACILITY**
- 818. CLOSE-OUT NETTING**
- 819. LIEN ON COLLATERAL**

- 820. PERFORMANCE BONDS
- 821. EXCESS PERFORMANCE BOND OF CLEARED SWAPS CUSTOMERS
- 822.-823. [RESERVED]
- 824. ADDITIONAL PERFORMANCE BOND
- 825.-826. [RESERVED]
- 827. SECURITIES LENDING PROGRAM
- 828.-829. [RESERVED]
- 830. CROSS-MARGINING
 - 830.A. Definitions
 - 830.B. Cross-Margining Programs
 - 830.C. [RESERVED]
 - 830.D. Performance Bonds for Cross-Margining Program
 - 830.E. Close-Out of Cross-Margin Positions
- 831.-849. [RESERVED]

MISCELLANEOUS

- 850. FEES
- 851. [RESERVED]
- 852. SURCHARGES FOR ERRORS, DELAYS AND OMISSIONS
- 853. TRANSFERS OF TRADES AND CUSTOMER ACCOUNTS
- 854. CONCURRENT LONG AND SHORT POSITIONS
- 855. OFFSETTING DIFFERENT SIZED FUTURES POSITIONS
- 856. NORMALIZATION OF OTC FX SPOT, FORWARD, SWAP AND OPTIONS TRANSACTIONS FOR CLEARING

Chapter 8 Clearing House and Performance Bonds

GENERAL

800. CLEARING HOUSE

The Exchange shall maintain and operate a Clearing House in order to protect market participants and to maintain the integrity of the contracts traded on or processed through the Exchange. Membership in the Clearing House shall be a right and privilege granted by the Board of Directors which may, from time to time, establish such classes of membership in the Clearing House, together with the duties, rights and privileges thereof, as it deems necessary. Whenever these rules create a right in favor of the Clearing House, or impose a liability on the Clearing House, it shall be construed as the right or liability of the Exchange, and shall be enforced by or against the Exchange.

For purposes of these Chapter 8 rules and except as otherwise noted within a particular rule, all references to requirements, conditions or procedures of the Clearing House, shall be deemed to apply to Dubai Mercantile Exchange Limited ("DME") contracts. The Clearing House, in relation to providing clearing services to DME for transactions effected on or subject to the rules of the DME, will provide reports and such other information to the DME as may be required for the business operation and regulatory requirements applicable to the DME.

801. MANAGEMENT

The general direction of the Clearing House shall be under the jurisdiction of the Clearing House Risk Committee. The Chief Executive Officer with the approval of the Board shall appoint a President of the Clearing House, who shall be responsible for the daily operation of the Clearing House and the implementation of the rules applicable to the Clearing House. The President of the Clearing House may also delegate authority for certain aspects of the daily operation of the Clearing House to staff of the Clearing House.

Exchange staff shall adopt, establish, publish and amend from time to time a Clearing House Manual of Operations ("Manual"). This Manual shall contain, among other things, information and directions for preparing trade data, completing prescribed memoranda and meeting other Clearing House requirements. The Manual and amendments thereto shall constitute part of the rules of the Exchange.

802. PROTECTION OF CLEARING HOUSE

802.A. Default by Clearing Member or Other Participating Exchanges

The Clearing House shall establish a guaranty fund (the "Base Guaranty Fund") for products other than CDS Products, IRS Products and any positions commingled with IRS Contracts pursuant to Rule 8G831 (such products, the "Base Guaranty Fund Products" and each product, a "Base Guaranty Fund Product Class"). Each clearing member shall contribute to the Base Guaranty Fund in accordance with the requirements of Rule 816. A clearing member's Base Guaranty Fund contribution may be applied by the Clearing House in accordance with this Rule 802 to mitigate a Loss (as defined below) to the Clearing House attributable to any cleared Base Guaranty Fund Product Class (as defined below) regardless of the Base Guaranty Fund Product Classes a clearing member clears. However, in order to accommodate differences in time frames and processes associated with the liquidation of certain Base Guaranty Fund Product Classes, Losses will be allocated among a set of Base Guaranty Fund tranches established to reflect the relative contributions of different product classes to the total Base Guaranty Fund. Notwithstanding this prioritization of the Clearing House's recourse, ultimately the entire Base Guaranty Fund will be available if necessary to satisfy all losses regardless of Base Guaranty Fund Product Class.

1. Default by Clearing Member

If a clearing member of CME, CBOT, NYMEX, COMEX, or an OTC Clearing Member or a Clearing Participant of the Kansas City Board of Trade Clearing Corporation (which, for the purposes of this rule shall be considered within the definition of the term "clearing member"), (i) fails promptly to discharge any obligation to the Clearing House or (ii) becomes subject to any bankruptcy, reorganization, arrangement, insolvency, moratorium, or liquidation

proceedings, or other similar proceedings under U.S. federal or state bankruptcy laws or other applicable law, the Clearing House may declare such clearing member to be in default. For purposes of this Rule 802, each default by a clearing member will be considered a separate default event, provided that if a clearing member has been declared in default, subsequent failures to pay by such defaulting clearing member shall not be considered separate default events unless and until the original default has been fully resolved and such clearing member has been restored to good standing.

2. Defaulting Clearing Member's Collateral

Upon the default of a clearing member, all assets of such defaulting clearing member that are available to the Clearing House, including without limitation Base Guaranty Fund contribution (pursuant to Rule 816) including any excess amounts, its performance bonds on deposit with the Clearing House relating to the Base Guaranty Fund Product Classes, any partial payment amounts or settlement variation gains in respect of Base Guaranty Fund Product Classes, the proceeds of the sale of any membership assigned to it for clearing qualification, excess performance bond or guaranty fund deposits of the clearing member for non-Base Guaranty Fund Product Classes and any of its other assets held by, pledged to or otherwise available to the Clearing House (collectively, the "Base Collateral"), shall be applied by the Clearing House to discharge the clearing member's obligation to the Clearing House. The defaulting clearing member shall take no action, including but not limited to, attempting to obtain a court order that would interfere with the ability of the Clearing House to so apply such assets and proceeds.

If the Base Guaranty Fund contribution, performance bond relating to Base Fund Products and other assets of a clearing member available to the Clearing House are insufficient to satisfy all of its obligations to the Clearing House, including all claims against the Clearing House by reason of its substitution for that clearing member pursuant to Rule 804 or Rule 8F05, the Clearing House shall nonetheless pay all such claims, which payments by the Clearing House shall be deemed a loss to it (hereinafter "Loss") and which shall be a liability of the defaulting clearing member to the Clearing House, which the Clearing House may collect from any other assets of such clearing member or by process of law.

For purposes of this Rule, the positions in the cross-margin account of a Participating Clearing Member or its Cross-Margining Affiliate at a Cross-Margining Clearing Organization, and the performance bond thereon, shall be considered assets of the Participating Clearing Member available to the Clearing House to the extent provided in the Cross-Margining Agreement between the Clearing House and such Cross-Margining Clearing Organization. A clearing member in default shall immediately make up any deficiencies in its Base Guaranty Fund contribution resulting from such default and in any event no later than the close of business on the banking day following demand by the Clearing House.

3. Default by Other Participating Exchanges or Partner Clearinghouses

If a Participating Exchange or Partner Clearinghouse fails to promptly discharge any obligation to the Clearing House arising out of its obligations to the Exchange, such Participating Exchange's or Partner Clearinghouse's letters of credit, performance bonds and other assets available to the Clearing House shall be applied by the Clearing House to discharge the obligation, pursuant to the procedures set forth below in Rule 802.A.5 with respect to a defaulting clearing member. If such resources are insufficient to satisfy the Participating Exchange's or Partner Clearinghouse's obligations to the Clearing House, the deficiency shall be considered a Loss that is subject to satisfaction pursuant to Rule 802.B.

4. Allocation of Base Guaranty Fund into Tranches

The Base Guaranty Fund shall be composed of the required Base Guaranty Fund contributions of clearing members pursuant to Rule 816, or any comparable security deposit contributions from a Participating Exchange or Partner Clearinghouse. The Clearing House shall allocate the Base Guaranty Fund into tranches as follows:

- i. Base Tranche. Base Guaranty Fund Product Classes that are not associated with an Alternate Tranche as described below shall comprise the Base Product Class. The first 80% of Base Guaranty Fund amounts contributed with respect to the Base Product Class shall be the "Base Tranche".
- ii. [Reserved]
- iii. Alternate Product Class Tranches. Any other product class approved by the Clearing House Risk Committee to support a product-specific Base Guaranty Fund tranche hereunder

shall comprise an Alternate Product Class. The first 80% of Base Guaranty Fund amounts contributed with respect to each such an Alternate Product Class shall be an "Alternate Tranche".

iv. Commingled Tranche. The remaining 20% of Base Guaranty Fund amounts contributed with respect to all of the foregoing Product Classes shall be the "Commingled Tranche".

As set forth below in 802.B, if the collateral of the defaulting clearing member, as described in Rule 802.A.2, Participating Exchange or Partner Clearinghouse is insufficient to satisfy its obligation to the Clearing House, the Tranche associated with a particular Base Guaranty Fund Product Class will be the Tranche first applied to reimburse the Clearing House for Losses attributable to that Base Guaranty Fund Product Class, as determined in accordance with Rule 802.A.5, (i.e., the Base Tranche will first be applied to Losses attributed to the Base Product Class, and the Alternate Tranche will first be applied to Losses attributed to an Alternate Product Class). The Base Guaranty Fund requirements of clearing members for purposes of allocation of such amounts into the Tranches shall be the required amounts in effect for each clearing member at the time of the default.

5. Apportionment Among Base Guaranty Fund Product Classes; Application of Defaulting Clearing Member's Collateral

Upon a default, the Clearing House shall apply the defaulting clearing member's collateral to the deficiency in accordance with the following procedures:

i. Initial Allocation of Assets to Base Guaranty Fund Product Classes. Subject to the provisions of 802.G, as of the cycle in which the default occurs, the Clearing House shall allocate assets of the defaulting clearing member to the different Base Guaranty Fund Product Classes in which the clearing member has open positions as follows: (a) the defaulting clearing member's Base Guaranty Fund requirement associated with each Base Guaranty Fund Product Class shall be attributed to such Class, (b) the defaulting clearing member's required performance bond amounts for each Base Guaranty Fund Product Class as of the prior clearing cycle shall be allocated to such Class, (c) any CME shares (whether common shares or class B shares) or any cash posted in lieu of such shares, and (d) any of the defaulting clearing member's other assets held by, pledged to or otherwise available to the Clearing House shall be divided among the Base Guaranty Fund Product Classes in proportion to the defaulting clearing member's Base Guaranty Fund requirement.

ii. Management of Obligations for Cycle of Default. As of the cycle in which the default occurs, the Clearing House shall aggregate the following assets: any excess Base Guaranty Funds, any excess performance bond from the prior clearing cycle for Base Guaranty Fund Product Classes, any partial payment by the clearing member for the default cycle, and any other available assets of the clearing member that are not specific to a Base Guaranty Fund Product Class. Such unassigned assets shall be allocated first to any net settlement variation payment obligation of the defaulting clearing member to the Clearing House relating to Base Guaranty Fund Product Classes, pro rata across account classes relative to the net settlement variation payment obligation for each account class. If the unassigned funds so allocated are sufficient to satisfy the clearing member's immediate settlement variation payment obligations for Base Guaranty Fund Product Classes, any remaining unassigned funds shall be divided among the Base Guaranty Fund Product Classes, pro rata in proportion to the size of the performance bond requirements for each Base Guaranty Fund Product Class for the clearing cycle immediately prior to the default. If the unassigned funds are not sufficient to satisfy the clearing member's settlement variation payment obligations for Base Guaranty Fund Product Classes for the default cycle, then (i) the Clearing House shall apply the unassigned funds to such obligations, pro rata relative to the size of such obligations on a per-Base Guaranty Fund Product Class basis, and within each Base Guaranty Fund Product Class, pro rata across account classes, and (ii) the remaining settlement variation payment obligations for such clearing cycle shall be satisfied on a per-Base Guaranty Fund Product Class basis only from the assets allocated to the relevant Base Guaranty Fund Product Class pursuant to 802.A.5.i. If the Clearing House is unable to satisfy a settlement variation payment obligation attributable to any Base Guaranty Fund Product Class from such assets, the deficiency shall be a Loss that the Clearing House shall satisfy pursuant to the procedures in Rule 802.B. For the avoidance of doubt, as set forth in 802.G, the Clearing House shall not use performance bond amounts or other collateral in any customer account class of the defaulting clearing member to satisfy a payment obligation to the Clearing House in respect of the defaulting clearing member's proprietary account.

iii. Payment Obligations as Losses are Finalized. During any subsequent clearing cycles in which the Clearing House is managing and/or liquidating open positions in respect of the defaulting clearing member, the Clearing House shall satisfy any settlement variation payment obligations owed by the defaulting Clearing member to the Clearing House, or other realized losses of or expenses to the Clearing House with respect to the default, on a per-Base Guaranty Fund Product Class basis, only from the assets allocated to the relevant Base Guaranty Fund Product Class pursuant to 802.A.5.i. Any settlement variation gain to the defaulting clearing member in any Base Guaranty Fund Product Class during such subsequent clearing cycles shall be added to collateral allocated to such Product Class pursuant to 802.A.5.i. Any additional assets of the defaulting clearing member obtained by the Clearing House during subsequent clearing cycles (including amounts from CDS Products and IRS Products made available to Base Guaranty Fund Product Classes) shall be divided among the Base Guaranty Fund Product Classes pro rata in proportion to the size of the performance bond requirements for each Base Guaranty Fund Product Class for the clearing cycle immediately prior to the default. The Clearing House shall apply such collateral to such payment obligations for all account classes, giving priority to customer account classes (i.e., customer accounts and proprietary accounts). If the Clearing House is unable to satisfy a settlement variation payment obligation to the Clearing House, or other realized loss or expense to the Clearing House, from the defaulting clearing member's collateral as set forth in this paragraph, the deficiency shall be a Loss that the Clearing House shall satisfy pursuant to the procedures in Rule 802.B. For the avoidance of doubt, as set forth in 802.G, the Clearing House shall not use performance bond amounts or other collateral in any customer account class of the defaulting clearing member to satisfy a payment obligation to the Clearing House in respect of the defaulting clearing member's proprietary account.

iv. Final determination of gain or deficiency for each Product Class. When the Clearing House determines the final net deficiency for a Base Guaranty Fund Product Class, it shall apply any remaining collateral of the defaulting clearing member with respect to such Base Guaranty Fund Product Class to satisfy the deficiency. If the Clearing House achieves a final gain, or if any excess collateral remains following satisfaction of a deficiency, the Clearing House shall allocate such excess funds to the defaulting clearing member's collateral for Base Guaranty Fund Product Classes within the same account class as to which a final gain or deficiency is yet to be determined, pro rata in proportion to the size of the performance bond requirements for such Base Guaranty Fund Product Classes for the clearing cycle immediately prior to the default. For the avoidance of doubt, as set forth in 802.G, the Clearing House shall not use performance bond amounts or other collateral in any customer account class of the defaulting clearing member to satisfy a payment obligation to the Clearing House in respect of the defaulting clearing member's proprietary account. Any gains or excess collateral within a segregated customer account class following final determination of the defaulting clearing member's losses shall remain segregated to the relevant customer account class, where it may be used to satisfy payment obligations arising from such account class in other Product Classes, but shall not be added to the clearing member's collateral generally.

Any remaining unsatisfied obligations of the defaulting clearing member shall become Losses to the Clearing House that shall be satisfied as set forth below.

802.B. Satisfaction of Clearing House Obligations

If the Clearing House is unable, using the defaulting clearing member's collateral as set forth in Rule 802.A, to satisfy all of the clearing member's obligations to the Clearing House then such obligations shall be met and made good promptly by the Clearing House pursuant to this Rule 802.B. Such obligations include, but shall not be limited to, costs associated with the liquidation, transfer and managing of positions, arising out of: 1) its substitution (pursuant to Rule 804 or Rule 8F05) for a defaulting clearing member a defaulting Participating Exchange, or a defaulting Partner Clearinghouse; 2) a shortfall in a cross-margining program; 3) the failure of a depository, exchange or market apart from the Exchange but whose transactions are cleared pursuant to the provisions of Chapters 8B, 8C, 8D, 8E or 8F; or 4) any other cause. All of the foregoing shall be deemed Losses to the Clearing House, which shall be apportioned by the Clearing House to Loss categories associated with the Base Guaranty Fund Product Class producing the Loss. Losses that cannot readily be attributed to a specific Base Guaranty Fund Product Class shall be apportioned by the Clearing House across all Base Guaranty Fund Product Classes in proportion to relative size of the Tranches (excluding the Commingled Tranche). Losses shall be satisfied by the Clearing House in the order of

priority hereafter listed. Non-defaulting clearing members shall take no actions, including but not limited to attempting to obtain a court order, that would interfere with the ability of the Clearing House to collect and apply assets and proceeds in accordance with this Rule 802.B. For purposes of this Rule 802.B, a default by a Participating Exchange or a Partner Clearinghouse shall be managed in the same manner as a default by a clearing member.

1. If Losses Are Limited to the Base Product Class

- i. The corporate contribution of CME, which shall equal \$100,000,000 (the “CMEContribution”).
- ii. The Base Tranche.
- iii. The Commingled Tranche.
- iv. The Alternate Tranche.
- v. The balance of any Losses remaining after the application of the above funds shall be assessed against all clearing members (excluding any insolvent or defaulting clearing members). Each clearing member (excluding any insolvent or defaulting clearing member) shall be subject to an assessment up to an amount that does not exceed (A) a total of 275 per cent of such clearing member’s Base Guaranty Fund requirements attributable to all Base Guaranty Fund Product Classes at the time of the default with respect to Losses attributed to a single defaulted clearing member and (B) a total of 550 per cent of such clearing member’s Base Guaranty Fund requirements attributable to all Base Guaranty Fund Product Classes at the time of the default with respect to Losses attributed to all defaulted clearing members during a Base Cooling Off Period. Assessed amounts shall be divided among clearing members pro rata in proportion to the size of the Clearing House’s assessment authority with respect to each clearing member.

2. [Reserved]

3. If Losses Are Limited to an Alternate Product Class:

- i. The CME Contribution.
- ii. The Alternate Tranche.
- iii. The Commingled Tranche.
- iv. The Base Tranche and any other Alternate Tranche, pro rata in accordance with the relative size of such Tranches.
- v. The balance of any Losses remaining after the application of the above funds shall be assessed against all clearing members (excluding any insolvent or defaulting clearing members). Each clearing member (excluding any insolvent or defaulting clearing member) shall be subject to an assessment up to an amount that does not exceed (A) a total of 275 per cent of such clearing member’s Base Guaranty Fund requirements attributable to all Base Guaranty Fund Product Classes at the time of the default with respect to Losses attributed to a single defaulted clearing member and (B) a total of 550 per cent of such clearing member’s Base Guaranty Fund requirements attributable to all Base Guaranty Fund Product Classes at the time of the default with respect to Losses attributed to all defaulted clearing members during a Base Cooling Off Period. Assessed amounts shall be divided among clearing members pro rata in proportion to the size of the Clearing House’s assessment authority with respect to each clearing member.

4. If Losses Are Apportioned Among Multiple Product Classes:

Because of differences in the timeframes and processes associated with the liquidation of certain product types, the Clearing House may finalize Loss amounts associated with different Base Guaranty Fund Product Classes at different points in time. Notwithstanding this, the Clearing House will act with all possible speed to satisfy the Losses as they are finalized, in the order of priority and per the schedule set forth below.

- i. The CME Contribution shall be applied. The CME Contribution shall be divided by the Clearing House into separate segments in proportion to the size of each Tranche except for the Commingled Tranche. Each segment of the CME Contribution shall be applied first to Losses associated with the applicable Base Guaranty Fund Product Class for such segment, and only at such time as one or more Losses associated with such Tranche are finalized. Subject to paragraph 802.C if any of the CME Contribution remains after such initial application, such funds shall be reserved to be later applied to Losses associated with other Product Classes as set forth in paragraph 802.B.4.v.

ii. The Base Tranche shall be applied to Losses associated with the Base Product Class and any Alternate Tranche shall be applied to Losses associated with the applicable Alternate Product Class, in each case when one or more Losses associated with such Tranche are finalized. Subject to paragraph 802.C, if the Tranche is not exhausted, any remaining funds shall be held in such Tranche and may later be applied to other Losses as set forth in paragraph 802.B.4.v.

iii. The Commingled Tranche funds shall be applied to remaining Losses associated with any Base Guaranty Fund Product Class immediately as such Losses are finally determined by the Clearing House, in the order that the amounts of such Losses are finalized. Consequently, the application of Commingled Tranche funds to Losses associated with one Base Guaranty Fund Product Class may occur prior to the finalization of Losses associated with other Base Guaranty Fund Product Classes (i.e., prior to the completion of the processes set forth in paragraphs 802.B.4.i and 802.B.4.ii with respect to Losses associated with another Base Guaranty Fund Product Class). If Losses associated with more than one Base Guaranty Fund Product Class are to be finalized pursuant to auction processes being conducted concurrently, then any remaining Commingled Tranche funds shall be divided and allocated to such auctions during the auction process, pro rata in proportion to the relative sizes of the mark-to-market losses for such Base Guaranty Fund Product Classes.

iv. Any Losses remaining after the application of the processes set forth above shall be assessed against all clearing members (excluding any insolvent or defaulting clearing members) up to an amount that does not exceed (A) a total of 275 per cent of the aggregate guaranty fund requirements across all clearing members (excluding any insolvent or defaulting clearing members) at the time of the default with respect to the Base Guaranty Fund Product Class with which the Loss is associated with respect to Losses attributed to a single defaulted clearing member and (B) a total of 550 per cent of the aggregate guaranty fund requirements across all clearing members (excluding any insolvent or defaulting clearing members) at the time of the default with respect to the Base Guaranty Fund Product Class with which the Loss is associated and all defaulted clearing members during a Base Cooling Off Period. Such assessments shall occur on a per- Base Guaranty Fund Product Class basis as Losses associated with each Base Guaranty Fund Product Class are finalized by the Clearing House. Consequently, the application of an assessment against clearing members with respect to Losses associated with one Base Guaranty Fund Product Class may occur prior to the finalization of Losses associated with other Base Guaranty Fund Product Classes. Assessed amounts shall be divided among clearing members pro rata in proportion to the size of the Clearing House's assessment authority with respect to each clearing member, without regard to the Base Guaranty Fund Product Classes cleared by such clearing member or the proportion to which such Base Guaranty Fund Product Classes contribute to such clearing member's maximum assessment exposure. (For example, a clearing member that clears only Alternate Tranche products and that is subject to a maximum \$1 billion assessment because of that clearing activity will be subject to assessment of up to \$500 million for a Loss associated with the Base Product Class if 50% of the Clearing House's aggregate assessment powers are generated by Base Guaranty Fund requirements with respect to the Base Product Class.) Any remaining unused assessment authority associated with Base Guaranty Fund Product Classes as to which Losses are fully satisfied shall be reserved and later may be applied to Losses associated with other Product Classes as set forth in paragraph 802.B.4.v below.

v. (a) Collateral of the defaulting clearing member, (b) the CME Contribution, (c) Base Tranche funds or Alternate Tranche funds, and (d) assessment powers shall be applied to remaining Losses as they are finalized with respect to each Base Guaranty Fund Product Class and in such order, provided that if at the time of any such application, Losses associated with another Base Guaranty Fund Product Class remain to be finalized, the Clearing House shall continue to reserve a portion of such remaining funds or assessment powers, pro rata in proportion to the size of the Tranches originally supporting such Base Guaranty Fund Product Classes, until such remaining Losses are finalized. When all Losses have been finalized by the Clearing House, any remaining reserved funds and assessment powers of any kind may be applied to satisfy such Losses, pro rata relative to the size of the remaining losses for the Base Guaranty Fund Product Classes.

5. Fedwire and Satisfaction of Assessment

All amounts assessed by the Clearing House against a clearing member pursuant to this Rule, during the hours in which the Federal Reserve's wire transfer system (Fedwire) is in operation,

shall be paid to the Exchange by such clearing member prior to the close of Fedwire on such day; provided, however, that all amounts assessed within one (1) hour prior to the close of Fedwire shall be paid to the Exchange within one (1) hour after Fedwire next opens.

Any clearing member that does not satisfy an assessment, made pursuant to this paragraph 802.B.5 or paragraphs 802.B.1.v, 802.B.2.v, 802.B.3.v, 802.B.4.iv or 802.B.4.v above, shall be in default. Any Loss that occurs as a result of such default shall itself be assessed by the Clearing House to non-defaulting clearing members pursuant to the applicable paragraph.

If a clearing member (i) has made payment of all amounts assessed against it pursuant to this Rule 802.B in connection with any single default and any related default by any other clearing member with respect to its own assessment, (ii) has replenished any deficiency in its Base Guaranty Fund contribution in accordance with Rule 802.D, and (iii) within five (5) business days after making such payments, has satisfied the other conditions for withdrawal set forth in Rule 913.A, it may provide written notice of its application to withdraw from clearing membership pursuant to Rule 913. Upon receipt of such notice, provided that the foregoing conditions have been satisfied, the withdrawing clearing member shall not be subject to any residual assessment to cover Losses for defaults occurring after the related Base Cooling Off Period. Further, the Base Guaranty Fund contribution that it has restored shall not be used or applied towards meeting any claim or obligation of the Clearing House pursuant to Rule 802.B that arises with respect to defaults occurring after the related Base Cooling Off Period, and the withdrawing clearing member's Base Guaranty Fund contribution shall be released in accordance with Rule 913.

After payment of an assessment pursuant to Rule 802.B, a clearing member shall charge other clearing members for whom it clears contracts or carries positions on its books to recover their proportional share of the assessment. Such other clearing members shall promptly pay the charge.

6. Details of Implementation

While adherence to the provisions of this Rule 802.B shall be mandatory, the detailed implementation of the process of finalizing Losses with respect to a default, including the liquidation, auction or sale of positions or assets of the defaulting clearing member, shall be conducted by the Clearing House in consultation with the Clearing House Risk Committee, with the approval of the Board, and/or such other committee as the Board may designate.

In order to ensure that the process for liquidating open commodity contracts results in competitive pricing, to the extent feasible under market conditions at the time of liquidation, liquidation of open commodity contracts held for a house account or customer account of a defaulting clearing member may occur by one or more of the following methods: (a) book entry that offsets open commodity contracts on the books of the defaulting clearing member; (b) liquidation in the open market; and/or (c) one or more private auctions amongst qualified market participants invited by the Clearing House to submit confidential bids. The Clearing House shall have discretion to select the best bid submitted for any portfolio in an auction, based on the totality of the circumstances.

In the event that identical customer commodity contracts are liquidated in the open market on the same date but cannot be liquidated at the same price, unless the Clearing House determines that it would be inappropriate, a weighted average of the liquidation prices for such contracts shall be used in determining the value of the liquidated commodity contracts for each such customer. In the event that open commodity contracts of multiple customers are liquidated in a bulk auction, the net proceeds of such auction shall be allocated on a pro rata basis amongst the affected customers based upon their applicable performance bond requirements for the clearing cycle immediately prior to the default.

802.C. Application of Funds to Avoid Clearing House Insolvency

Notwithstanding any requirements to reserve funds set forth in Rule 802.A or Rule 802.B, if at any point following a default, the Clearing House will be unable to timely fulfill its obligations following application of the funds described above in the priority described above, such that the Clearing House is in imminent danger of defaulting on its obligations or being declared insolvent, then the Clearing House shall be entitled to apply to such obligation any available funds reserved from the defaulting clearing member's collateral, the CME Contribution or any Tranche (other than the Commingled Tranche, which shall have been exhausted pursuant to paragraph 802.B.4.iii), in the foregoing order of priority, if necessary to avoid a default by the Clearing House or a declaration of its insolvency. Such use of reserved funds may only be

made (i) if the Clearing House reasonably concludes that there is a reasonable expectation that (A) the use of such funds will satisfy the immediate obligation and avoid a default or insolvency and (B) that the remaining funds in the overall financial safeguards package (including assessment powers) will be sufficient to satisfy the finalized Losses with respect to all Base Guaranty Fund Product Classes, and (ii) the Clearing House reaches such conclusion in consultation with the Clearing House's primary regulator as to the specific facts, circumstances and estimates of Losses supporting such conclusion. In such case, the Clearing House shall restore the funds so employed to the reserved collateral segments, the CME Contribution segments or Tranches from which they were drawn promptly following receipt by the Clearing House of assessment payments or any other amounts that become available to it in respect of obligations arising out of the defaulted clearing member's default.

802.D. Utilization of Remaining Base Collateral of Defaulted Clearing Member; Restoration of Funds Following Final Determination of Losses

1. After the default of a Base Clearing Member is finally resolved, excess Base Collateral of the clearing member may be used by the Clearing house for losses to the Clearing House of such clearing member for IRS Products and CDS Products on a pro rata basis based on the amount of any unresolved losses for such product classes.

2. If after the default of a clearing member is finally resolved, the Clearing House determines that collateral of the defaulting clearing member, the CME Contribution, Tranche funds other than the Commingled Tranche, or assessment powers were employed in a manner different from what would have occurred had all assets been secured and liquidated immediately and all Losses finalized simultaneously, then the Clearing House shall make appropriate (i) distributions to the non-defaulting firms whose Base Guaranty Funds were applied or who were assessed and/or (ii) rebalancing allocations among Base Guaranty Fund tranches.

802.E. Rights of Exchange for Recovery of Loss

Losses caused by the default of a clearing member, Participating Exchange or Partner Clearinghouse are amounts due to the Clearing House from such clearing member, exchange or clearing house and shall remain legal obligations thereof notwithstanding the Clearing House's recourse to the loss-mutualization provisions of this Rule 802, which amounts the Clearing House shall take commercially reasonable steps to recover (including claims submitted in bankruptcy court). If a Loss for which clearing members or their Base Guaranty Fund contributions have been assessed is subsequently recovered by the Exchange in whole or in part, the net amount of such recovery shall be credited to such clearing members (whether or not they are still clearing members at the time of recovery) in proportion to the amount of the assessment.

802.F. Guaranty Fund Contributions to be Restored

In the event it shall become necessary to apply all or part of the Base Guaranty Fund contributions to meet obligations to the Clearing House pursuant to this Rule 802, clearing members shall restore their contribution to the Base Guaranty Fund to previously required level prior to the close of business on the next banking day.

802.G. Default Management Across Account Classes

The procedures set forth in 802.A and 802.B shall be conducted separately by the Clearing House with respect to open positions and associated performance bond contributions for different account classes. Upon a default, the Clearing House may, in accordance with applicable law, act immediately to attempt to transfer to alternate clearing members part or all customer positions and associated collateral with respect to any customer account class in which there is no default on payment obligations or shortfall in required collateral, and in such cases the Clearing House shall not apply segregated customer collateral to any payment obligations or Losses arising from a default in any proprietary account or a different customer account class.

1. If a default occurs in a customer futures account, the Clearing House has the right to liquidate and apply toward the default all open positions and customer performance bond deposits in the futures account class of the defaulting clearing member. Accordingly, positions and performance bonds deposited by customers not causing the default are at risk if there is a default in the futures account class of their clearing member. If the Clearing House liquidates positions and/or collateral in the futures account class, any collateral remaining after application to Losses in respect of such account class shall be reserved to the futures account

class in order to satisfy the claims of non-defaulting customers in accordance with applicable law.

2. In order to minimize disruptions and loss to its public customers if a clearing member defaults, each clearing member shall cause its cleared swaps customers to establish arrangements to directly make all required performance bond and settlement variation payments directly to the Clearing House and to keep current and on file with the Clearing House any direction to transfer its open positions and collateral to another clearing member.

3. The Clearing House shall treat positions and collateral of the cleared swaps customers of a clearing member, which has been declared to be in default, in accordance with Part 22 of the CFTC's regulations. Immediately after the default of a clearing Member, the Clearing House shall cease netting settlement variation among the cleared swaps customers of the defaulted clearing member.

4. If the Clearing House ceases to net settlement variation margin of the customers of a defaulted clearing member, the Clearing House will calculate the settlement variation margin obligation owed to each cleared swaps customer ("collects"), and also calculate the settlement variation margin obligation owed to the Clearing House by each cleared swaps customer ("pays"). The Clearing House will establish a holding account for settlement variation margin collects owed to each cleared swaps customer or, subject to necessary approvals, pay such settlement variation margin collects directly to each cleared swaps customer. The Clearing House will collect cleared swaps customer settlement variation margin pays from the following sources:

- (i) Directly from the obligated cleared swaps customer in accordance with the arrangements established pursuant to 802.G.2 or by attaching any excess collateral attributable to that customer;
- (ii) By means of liquidating the collateral supporting the cleared swaps customer's position attributed to a cleared swaps customer that fails to make a required settlement variation payment when due. The proceeds of such liquidation shall be used to meet the cleared swaps customer's settlement variation pay obligation to the clearing house. (If the collateral is liquidated, the positions supported by the collateral shall be promptly liquidated.);

Any unmet cleared swaps customer obligation to the Clearing House will be a "Loss," per 802.A.2, and will be cured in accordance with the provisions of 802.B.

5. The Clearing House shall rely on its own books and records to identify the portfolio of rights and obligations arising from the positions of each cleared swaps customer. To the extent the Clearing House's books and records are not available or the Clearing House determines that its books and records are not accurate, the Clearing House shall rely on the information provided by the defaulted clearing member to identify the portfolio of rights and obligations arising from the positions for each of its cleared swaps customers.

6. Upon liquidating the defaulting clearing member's proprietary account, any remaining collateral may be applied by the Clearing House to Losses remaining in the defaulting clearing member's customer account classes, provided that such collateral shall be divided among the Product Classes as described above. If the defaulting clearing member has more than one customer account class that has been declared to have defaulted, proceeds from the defaulting clearing member's proprietary account for each relevant Product Class shall be divided by the Clearing House pro rata among such customer account classes, based on their applicable performance bond requirements for the clearing cycle immediately prior to the default.

802.H. Base Cooling Off Period and Multiple Defaults

The provisions set forth in Rule 802.A and 802.B shall apply with respect to each default by a clearing member. If more than one clearing member default occurs at a time or in close sequence, including a default that occurs by reason of a clearing member's failure to satisfy an assessment demand, the Clearing House shall manage the defaults separately. Upon any default, non-defaulted clearing members shall be subject to a maximum obligation during the relevant Base Cooling Off Period to contribute to the Base Guaranty Fund and to fund assessments as set forth in Rule 802.B. This maximum shall apply from the date of the original default until the later of (i) the 5th Business Day thereafter and (ii) if another clearing member defaults during the 5 Business Days following the initial or any subsequent default,

the 5th Business Day following the last such default (such period, the “Base Cooling Off Period”), regardless of the number of defaults that occur during such Base Cooling Off Period.

The aggregate maximum contribution for the Base Cooling Off Period shall be based upon each clearing member’s Base Guaranty Fund requirement and assessment exposure in effect at the commencement of the Base Cooling Off Period. The maximum does not limit clearing members’ obligations to restore their Guaranty Fund contributions as set forth in Rule 802.F, except that if the clearing member’s required Guaranty Fund contribution would exceed such maximum, the clearing member’s Base Guaranty Fund requirement shall be reduced accordingly for the remainder of the Base Cooling Off Period. Following a Base Cooling Off Period, the Clearing House shall notify each clearing member of its Base Guaranty Fund deposit obligation and its assessment exposure.

The CME Contribution to the Base Guaranty Fund shall be limited to an aggregate maximum of \$100,000,000 during the Base Cooling Off Period. The Board may, at its discretion, authorize additional funds be added to the CME Contribution during the Base Cooling Off Period.

803. LIMITATION OF LIABILITY

The liability of the Clearing House shall be limited to losses resulting from the substitution of the Clearing House upon contracts between clearing members and to losses in connection with substitution of another Participating Exchange for clearing members (i.e., the Mutual Offset System), and to losses in connection with amounts due and owing from a Partner Clearing House. The Clearing House shall not be liable for any other obligations, including but not limited to, obligations of a non-clearing member, obligations of a clearing member to a non-member, obligations of a clearing member to another member of the Clearing House who is acting for him as broker, or obligations to a customer by a clearing member; nor shall the Clearing House become liable to make deliveries to or accept deliveries from a customer of its clearing members.

804. SUBSTITUTION¹

Except with respect to trades made pursuant to Rules 526, 538 and 853, the Clearing House shall, through the process of novation, be substituted as, and assume the position of, seller to the buyer and buyer to the seller of the relevant number of Exchange or Marketplace contracts upon the successful matching of trade data submitted to the Exchange by the clearing members on the long and short sides of a trade. With respect to contracts that are traded on and matched by another exchange or market, the Clearing House shall be substituted as, and assume the position of, seller to buyer and buyer to seller of the relevant number of such contracts upon matching of trade data submitted to and accepted by the Exchange.

Upon such substitution, each clearing member shall be deemed to have bought the contracts from or sold the contracts to the Clearing House, as the case may be, and the Clearing House shall have all the rights and be subject to all the liabilities of such member with respect to such transaction. Such substitution shall be effective in law for all purposes.

With regard to trades made pursuant to Rules 526, 538 and 853, the Clearing House shall be substituted at the time payment of the first settlement variation and performance bond due for such trades pursuant to Rule 814 is confirmed by the appropriate settlement bank for both members.

805. OPEN POSITIONS

All contracts for the purchase or sale of any product for future delivery shall remain open and in force, and shall continue to be binding upon the original parties until liquidated by offset as provided in Rule 806 or by delivery or failure to perform as provided in Chapter 7.

806. OFFSET PROCESS

When a member buys and sells the same commodity for the same delivery month or a put or call option with the same strike price and expiration month and such contracts are cleared through the Clearing House, the purchases and sales are not automatically offset one against

¹ Revised December 2008.

the other. Transactions can only be offset against one another by complying with Rule 811.

807. OPEN LONG POSITIONS DURING DELIVERY MONTH

At such times and in such manner as shall be prescribed by the Manual, clearing members shall submit a complete and accurate record of dates of all open purchases for use in making deliveries. Clearing members shall be fully responsible for inventories submitted to the Clearing House. Unless otherwise provided in the Manual, beginning on the day following the first day on which longs may be assigned delivery, all purchases and sales, made in one day in the lead month contract by a person holding a long position in that contract, must first be netted out as day trades with only the excess buys considered new longs or the excess sales being offsets of the long position.

This rule shall not apply to trading in options contracts.

808. PROCEDURES FOR TRADE SUBMISSION ON CME CLEARPORT

808.A. Scope of Rule

This Rule governs transactions not competitively executed on the Exchange ("Transactions") that are submitted via CME ClearPort for clearing in connection with a contract that is listed on the Exchange for clearing only or listed for trading and clearing on the Exchange. For purposes of this Rule, the two parties to the Transaction shall be referenced as the "Parties to the Transaction."

808.B. Compliance with Regulatory Exemptions and Exclusions

Each of the Parties to the Transaction shall be responsible for ensuring that, where applicable, the Transaction complies with CFTC regulatory requirements.

808.C. Block Trades or Exchange for Related Position Transactions

The process of submission of a block trade or an exchange for related position Transaction ("EFRP") executed pursuant to Rules 526 or 538, as applicable, shall not be deemed to have been completed unless and until the Parties to the Transaction have successfully concluded the submission of the Transaction to the Clearing House as a block trade or an Exchange of Futures for Physical ("EFP"), an Exchange of Futures for Risk ("EFR") or an Exchange of Options for Options ("EOO"), as applicable, pursuant to the provisions of this Rule and the requirements of Rule 804.

808.D. OTC Derivatives Transactions Submitted for Clearing

CME ClearPort allows for the submission of off-Exchange OTC derivatives Transactions that the Exchange has designated as eligible for clearing only. Such Transactions are subject to the Rules of the Exchange applicable to such cleared-only products.

808.E. Trade Submission Procedures

All Transactions submitted to the Exchange pursuant to this Rule must be submitted in accordance with the procedures established by the Exchange and the Clearing House for this purpose, as amended from time to time. The Parties to the Transaction and any Party authorized under Section F. of this Rule with brokering capability ("Broker" or "Brokers") to submit executed transactions on behalf of Parties to the Transaction to the Exchange shall be responsible, both individually and jointly, for accurately confirming the details of the Transaction to the Exchange. Additionally, Brokers submitting Transactions on behalf of Parties to the Transaction remain responsible for ensuring that such Transactions are accurately and timely submitted in accordance with the requirements of applicable Exchange Rules and requirements of the Clearing House. Once submitted, such transactions may not be modified except in accordance with Section H. of this Rule. The Exchange has no responsibility with respect to the confirmation of trade terms for the Transactions, and the Clearing Members carrying the account of the Parties to the Transaction shall only be responsible for the confirmation required pursuant to Rule 957.

808.F. CME ClearPort Registration Requirements

Each Clearing Member must register with the Exchange in the manner required for any customer authorized by the Clearing Member to submit transactions to the Exchange pursuant to this Rule, and must also register with the Exchange the applicable account numbers for each such customer. For each such account, the Clearing Member carrying that account must also submit to the Exchange the name of any Broker(s) who has registered with the Exchange

for services provided by the Exchange, and who is authorized by the customer to act on its behalf in the submission of executed Transactions to the Exchange. For any such Brokers authorized by the customer and submitted to the Exchange by the Clearing Member, such submission by the Clearing Member will not constitute an endorsement or ratification of the customer's authorization of the Broker. Moreover, submission of Brokers authorized by the customer will not mean that the Clearing Member is in privity with, has a relationship with and/or is otherwise standing behind any of the customer's authorized Brokers, and the Clearing Member will have no responsibility for any such Brokers selected by the customer and no duty or obligation to supervise the activities of any such Brokers.

808.G. Establishment of Authorized Commodities and Account Risk Limit(s)

With the exception of Credit Default Swap ("CDS") and Interest Rate Swap ("IRS") Transactions, for each account number that has been registered with the Exchange pursuant to Section F. of this Rule, a Clearing Member must also input into the CME Account Manager system an authorization identifying the specific commodities for which a Transaction may be submitted to the Exchange pursuant to this Rule and the account risk limit(s) assigned by the Clearing Member for Transactions for that account. Requirements for CDS and IRS Transactions are set forth in the applicable sections of the Clearing House Manual of Operations for those products.

808.H. Trade Deletion Procedures for Transactions Submitted via CME ClearPort

Following submission of the trade details by Broker (or by Exchange staff as mutually agreed by the Parties to the Transaction), an e-mail will be transmitted to the Parties to the Transaction notifying them that they have been listed as counterparties in a Transaction that has been submitted to the Exchange. Following such submission, a buyer or seller may not unilaterally reject the trade terms previously submitted to the Exchange. However, in order to correct an error resulting from the good faith actions of the Broker or Exchange staff, as applicable, and upon mutual consent of the Parties to the Transaction, Broker or Exchange staff, as applicable, may void the transaction provided, however, that this void response is received by the Exchange within three Business Days of the time of the initial submission of the Transaction to the Exchange. Notwithstanding the provisions of this Section, the Parties to the Transaction and any Broker authorized by the Parties to the Transaction pursuant to Section E. of this Rule may be subject to sanctions pursuant to Rule 512 for the inaccurate, incomplete or untimely submission of the Transactions to the Clearing House.

808.I. Entry of Transactions

For a Transaction submitted to the Exchange pursuant to this rule, such Transaction will first be routed to the Exchange's credit check system. The time of entry of a Transaction into the Exchange's system will be recorded by the system and will be used by the Exchange as the time that a credit check was conducted pursuant to Section J. below.

808.J. Use of Credit Check System

The Exchange will conduct a credit check for each Transaction. The credit check will confirm whether the Clearing Member carrying that account has authorized that account for Transactions submitted pursuant to this Rule in the commodity involved in the Transaction, and confirm whether the entry of the Transaction into clearing would fall within the account risk limit(s) established by the Clearing Member. At all times until both sides (Buy and Sell) of the Transaction have successfully cleared the credit check and the Clearing House has been substituted as the counterparty to the Transaction pursuant to Rule 804, a Transaction submitted to the Exchange pursuant to this rule shall remain as an uncleared Transaction. In the event that either side of the Transaction is rejected as a result of the credit check test, the Parties to the Transaction and their respective Clearing Members will be informed accordingly.

Thereafter, any determination as to further action with respect to the Transaction will be the sole responsibility of the Parties to the Transaction.

808.K. Trade Submission Deadlines

With the exception of CDS, IRS and FX Spot, Forward and Swaps Transactions, all other Transactions that are submitted, confirmed and accepted for clearing, as further provided by Section L. of this rule, prior to 5:15 p.m. New York time on an Exchange Business Day will be included by the Exchange for clearing for that Business Day. The Exchange reserves the right to modify these business hours without notice at any time. The CME ClearPort Facilitation Desk will generally be available to assist users 24 hours a day on all Exchange Business

Days. Trade submission deadlines for CDS, IRS and FX Spot, Forward and Swaps Transactions are set forth in the applicable sections of the Clearing House Manual of Operations for those products.

808.L. Clearance by Both Sides of the Transactions of Credit Check

Upon clearance by both sides of the Transaction of the credit check, the Transaction shall be deemed to have been accepted for clearing and will be routed automatically to the Exchange's clearing system. Notwithstanding the above, a Clearing Member shall also be responsible for accepting and clearing a position for a Transaction entered into the Exchange's clearing system for clearing following any non-operation of the Exchange's credit check functionality for the applicable account carried by the Clearing Member.

809. TRADE DATA PROCESSING SYSTEM

809.A. Trade Data

Every clearing member must submit accurate trade data for the day's business to the Clearing House no later than the time specified by the Clearing House.

809.B. Matched and Unmatched Trades

The Clearing House shall process all trade data submitted by clearing members but shall accept only those trade records (transactions) which are in agreement with the corresponding trade records submitted by the opposite clearing members.

Trade records will be matched, to the extent the opposite trade information is consistent, through the tiered matching process.

Resubmitted trade data will be processed by the Clearing House. Trades with unmatched trade information remaining after the tiered matching process will be rejected and outtrade notices will be issued to clearing members.

Trades unreconciled after the final reconciliation must be submitted on the following business day as "as-of-trades."

809.C. Trade Register and Clearing Reports

From the trade data cleared during each day's reconciliation, the Clearing House will produce a trade register for each clearing member which will itemize by commodity and contract: the opening long and short position, the contracts bought and/or sold during the day, the prices at which executed, and the settlement amounts.

The Clearing House will also produce a recap ledger for each clearing member that will itemize various position and financial information that includes but is not limited to, commodity positions, settlement amounts and performance bond information.

809.D. Reconciliation of Outtrades

It shall be the primary responsibility of the clearing member to see that all trades are cleared prior to the opening of the following day's open outcry market.

Each member, if applicable, and clearing member firm shall designate a person or persons who will be available and responsible for reconciling the member or clearing member firm's outtrades. The person or persons shall be qualified to resolve outtrades as the member or clearing member firm's designated outtrade representative. Failure to have a qualified representative available, with all materials necessary to reconcile outtrades, at the time specified above shall constitute negligence in the determination of responsibility for any outtrades. If one firm cannot locate another firm's broker or representative for clearing purposes during these time periods, it shall report such fact to the President of the Clearing House. If the President of the Clearing House or his designee cannot find the broker or representative of the firm, fines will be assessed in the amounts of \$1,000, \$2,000 or \$3,000 sequentially, for violations occurring within a 30-day period.

810. FALSE ENTRIES ON CLEARING MEMORANDA

No member shall place any false or inaccurate entries on any clearing memoranda, including, with respect to a Participating Clearing Member, the clearing memoranda of a Cross-Margining Clearing Organization.

811. POSITION CHANGE DATA

Position change data must be submitted to the Clearing House each trading day not later than the time specified by the Clearing House. Position change data will be in such form and contain such information as prescribed by the Clearing House. When requested, the identification of accounts will be made available to the Financial and Regulatory Surveillance Department.

812. FINAL SETTLEMENT PRICE

Certain products, as described in the applicable product chapters, have procedures for establishing a final settlement price that are distinct from the procedures for establishing the daily settlement price for the product on the last day of trading. For such products, if a final settlement price is unable to be determined or if the applicable procedures result in a clearly aberrant final settlement price inconsistent with market value and alternative settlement procedures are not otherwise specified in the relevant product chapter, then the Chief Executive Officer, President or Chief Operating Officer, or their delegate, may establish a final settlement price that reflects the true market value at the time of final settlement.

A payment in settlement of a delivery obligation (physical or cash settled) shall not be adjusted after ten business days for any reason, including, without limitation, a calculation error or erroneous and/or incomplete input.

813. DAILY SETTLEMENT PRICE ¹

Daily settlement prices shall be determined each business day for each product pursuant to one or more of the procedures set forth below. The settlement price shall be a price consistent with the minimum tick increment for the product; if the calculated settlement price is not a standard tick increment, the calculated settlement price will be rounded either to the nearest tick or to the tick closer to the previous day's settlement price. The procedure used to determine the settlement price of a product will depend on the product group, level of activity and liquidity during the defined closing time period, and the trading venue(s) used to derive the settlement. To the extent that any members participate in the creation of settlement prices, they agree to assign and transfer to the Exchange any and all right, title and interest in and to the settlement prices, including, but not limited to, all copyright in the settlement prices.

1. Midpoint of the Closing Range: In products that use this procedure, the first trade and all subsequent trades, higher bids and lower offers that are quoted during the established closing time period will be included in the closing range. The midpoint of the high and low quotes in the closing range will be the settlement price. If no trade occurs during the defined closing period, the last quote of the day (trade, higher bid, lower offer) will be 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.

2. Volume-Weighted Average Price (VWAP) of the Closing Range: In products that use this procedure, all outright trades that occur during the defined closing time period are utilized to calculate the VWAP for specified contract months and the VWAP will be the settlement price. If the open outcry venue is used to determine the settlement price, the VWAP may be estimated. The calculated or estimated VWAP of relevant spread trades that occur during the closing time period may be used to determine the settlement price of deferred or less actively traded contract months in products that use this procedure.

3. Bid/Ask Midpoint at the Close: In products that use this procedure, the midpoint of the bid/ask at the defined closing time will be the settlement price.

4. Option Settlements: Option settlements are derived from available market information including, but not limited to, outright trades, bids or offers during the close, relevant spread trades, bids or offers during the close, the settlement price of the underlying future and relevant relationships based on option pricing theory using option pricing models employed by the exchange.

5. For all contract months not determined by one of the methods set forth above or pursuant to Section 6 below, relevant spread relationships between contract months will be used to derive the settlement.

¹ Revised January 1981; March 1981; April 1982; July 1982; September 1989; September 1992; November 1995; November 2000; November 2001, March 200; June 2009; September 2009; December 2009; November 2010¹ September 2011.

6. In the event the Exchange determines that the settlement price derived by one of the methods set forth above is not an accurate representation of the relevant market, the Exchange may determine the settlement price based on other market prices, including settlement prices for similar contracts trading on other exchanges.
7. For all products that are settled with the delivery of, or by reference to, the same underlying instrument but which are offered in alternative contract sizes (mini or micro), a single settlement price will be applicable to all such contracts, with necessary adjustments made to round to the nearest tradable price increment eligible in all such contracts.
8. For contracts cleared through ClearPort Clearing that are not otherwise settled by one of the methods set forth above, staff shall determine settlement prices for such contracts based upon a consideration of relevant market data, including, but not limited to, trading activity in such OTC products, pricing data obtained from OTC market participants, the settlement prices of related products and any other pricing data from sources deemed reliable by Staff. With respect to CDS products, in addition to the foregoing, the Exchange may use a price quality auction in which bids and offers submitted by Members may be "crossed" to effect trades and to establish settlement prices for particular contracts.
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/strikes during the closing range, or other relevant market information, or if there is no relevant market activity, an Exchange official may establish a settlement price that best reflects the true market valuation at the time of the close.
10. For products cleared by the Clearing House on behalf of another entity, the settlement price shall be determined according to the rules of such entity.
11. Notwithstanding the above, in the case of inaccuracy or unavailability of a settlement price, or if a settlement price creates risk management concerns for the Clearing House, the Clearing House reserves the right to calculate settlement variation using an alternate price determined by the Clearing House.

814. SETTLEMENT VARIATION

When a clearing member is long or short any amount of any futures contract at the end of the trading day, as indicated by its clearing memoranda, settlement shall be made with the Clearing House to the settlement price for that day, and such member shall be liable to pay to, or entitled to collect from, the Clearing House any loss or profit, as the case may be, represented by the difference between the price at which the commodity was bought or sold and the settlement price of the commodity at the end of the trading day. After making such settlement with the Clearing House, such member shall be deemed long or short (or long and short) such commodity, as the case may be, at the settlement price of the trading day. Notwithstanding the foregoing, the Clearing House shall not be required to pay any profit to a Participating Clearing Member in the event that such member or its Cross-Margining Affiliate fails to make any required settlement for that trading day with a Cross-Margining Clearing Organization.

If the market conditions or price fluctuations are such that the Clearing House deems it necessary, it may call upon the clearing members which in its opinion are affected to deposit with the Clearing House by such time as specified by the Clearing House the amount of funds that it estimates will be needed to meet such settlements as may be necessary. The Clearing House may pay out funds to those clearing members that in the opinion of the Clearing House will have credit balances as a result of those same market conditions or price fluctuations, except that in no instance may the Clearing House pay out funds to a clearing member, other than at the regular settlement, in excess of the total original performance bond deposits it holds for such clearing member. All deposits and payments made under this Rule shall be subject to the procedures prescribed by the Clearing House and set forth in the Manual.

Settlement variation, as figured to the market at such times as the Clearing House shall determine, must be paid in cash or any other form of collateral approved by the Clearing House Risk Committee.

Settlement variation is deemed final when an irrevocable commitment to pay has been provided to the Clearing House by a settlement bank in a form or manner as approved by the Clearing House.

815. THIRD PARTY EXECUTION PLATFORMS FOR SWAPS**815.A. Exclusivity of Clearing House Rules**

The Clearing House Rules shall exclusively apply, and prevail to the extent there is any conflict with any third party rules, to all swap trades, and resulting positions, from the time that a swap trade, including a swap trade executed on a swap execution facility ("SEF") or other third party execution platform for swaps (collectively, "Third Party Execution Platforms"), is submitted for clearing. Notwithstanding the foregoing, if the Clearing House rejects a swap trade for clearing, the Clearing House Rules shall cease to apply to that swap trade until such swap trade is resubmitted for clearing.

815.B. Clearing House Authority

The Clearing House will have the sole authority to:

1. determine whether any trade submitted for clearing will be accepted or rejected. For the avoidance of doubt, Third Party Execution Platforms may not make a determination on clearing acceptance or rejection and may only communicate the Clearing House's determination of whether a trade has been accepted or rejected for clearing.
2. block or cancel any trades submitted for clearing by, or on behalf of, any Third Party Execution Platforms if it determines that such trades were executed or submitted to the Clearing House in error.
3. deny or terminate the connection of Third Party Execution Platforms to the Clearing House due to technical, operational or risk management issues at the Third Party Execution Platforms.
4. determine whether it will accept any trade transaction counterparty risk.
5. determine whether contracts cleared by the Clearing House are economically equivalent and should be offset within the Clearing House pursuant to the Act.

815.C. Voids and Price Adjustments

A void or price adjustment for any swap trade that has been accepted for clearing is not valid without the consent of the Clearing House.

815.D. Submission to Clearing House Rules and Access to Execution Platforms

All Third Party Execution Platforms that submit, or have submitted on their behalf, swap trades for clearing to the Clearing House shall be bound by Clearing House Rules, including, but not necessarily limited to, the disciplinary Rules and the emergency Rules contained in Chapters 2, 4, 8, 8G and 8H and shall, at all times, provide the Clearing House with access to its execution platform for risk management purposes.

815.E. Compliance with Regulatory Standards

No Third Party Execution Platform may submit swap trades for clearing to the Clearing House unless it has complied with all applicable CFTC regulations, standards and requirements including, but not limited to, technological, operational and risk management standards.

815.F. Transfer of Swap Positions

No swap positions may be transferred, including those resulting from an execution on Third Party Execution Platforms, unless such transfer is made in accordance with the Clearing House Rules.

815.G. Applicability to Security-Based Swaps

Rule 815 does not apply to security-based swaps.

816. GUARANTY FUND DEPOSIT

Each clearing member shall make a Base Guaranty Fund deposit with the Exchange as security for its obligations to the Clearing House. The minimum Base Guaranty Fund deposit of a clearing member shall equal the greater of (a) a minimum amount specified by the Clearing House Risk Committee or (b) the clearing member's proportionate share of the "Aggregate Guaranty Fund Deposit." The Aggregate Guaranty Fund Deposit shall be an amount determined by the Clearing House.

Each clearing member's proportionate share of the Aggregate Guaranty Fund Deposit shall consist of:

(i) a specified percentage of the Aggregate Guaranty Fund Deposit multiplied by the clearing member's proportionate share (including the total risk performance bond requirement in respect of positions in its cross-margin accounts and any applicable short option value) of the average aggregate risk performance bond requirement (including the risk performance bond requirement in respect of positions in all cross-margin accounts and any applicable short option value) for the preceding three months; plus

(ii) a specified percentage of the Aggregate Guaranty Fund Deposit multiplied by the clearing member's proportionate share of the total number of contracts executed on the Exchange and any applicable exchange or market during the preceding three months; plus

(iii) a specified percentage of the Aggregate Guaranty Fund Deposit multiplied by the clearing member's proportionate share of foreign currency settlements for the preceding three months.

The percentages in (i) through (iii) above shall be determined and modified by the Clearing House Risk Committee as appropriate. Some contracts may be weighted more heavily than others in order to reflect the greater risk associated with those contracts. The average aggregate risk performance bond requirement, the total number of contracts executed, the gross notional amount of open interest cleared and each clearing member's proportionate share of each will be calculated by the Clearing House, and a report setting forth such information and the clearing member's required Base Guaranty Fund deposit will be given to the clearing member each quarter, and the Clearing House may provide such reports on an interim basis at any time during the quarter as the Clearing House staff shall determine. On a quarterly basis, if such report indicates that the clearing member's current Base Guaranty Fund deposit with the Clearing House is smaller than the amount required, the clearing member shall increase its amount within five business days. If such report indicates that the clearing member's current Base Guaranty Fund deposit with the Exchange is larger than the amount required, the clearing member may withdraw the excess amount. If, prior to the issuance of the quarterly report, the Clearing House determines that an increase in the Base Guaranty Fund deposit is necessary to protect the financial integrity of the Clearing House, the clearing member, upon demand of the Clearing House, shall increase its Base Guaranty Fund deposit amount within five business days.

A clearing member's Base Guaranty Fund deposit may be in a form as set forth in the Manual. Such Base Guaranty Fund deposit forms and amounts shall be subject to the terms and conditions as approved by Exchange staff.

817. LIQUIDITY FACILITY

Assets deposited by a clearing member in satisfaction of guaranty fund deposits and performance bond requirements may also be used to directly secure the Exchange's obligations to its lenders under any liquidity facility entered into by the Exchange for the purpose of providing liquidity to the Exchange; provided that assets pledged from (x) Base Guaranty Fund deposits and performance bond associated with Base Guaranty Fund Product Classes shall only be used under this Rule to secure liquidity to satisfy obligations arising from Base Guaranty Fund Product Classes, (y) IRS Guaranty Fund deposits and performance bond associated with IRS Products shall only be used under this Rule to secure liquidity to satisfy obligations arising from IRS Products, and (z) CDS Guaranty Fund deposits and performance bond associated with CDS Products shall only be used under this Rule to secure liquidity to satisfy obligations arising from CDS Products; provided further that performance bond deposits of a non-defaulting clearing member may only be pledged under this Rule to secure liquidity for amounts assessed against such clearing member. By delivering assets to the Exchange in satisfaction of guaranty fund deposit and performance bond requirements, each clearing member is hereby deemed: (i) to agree that its assets may be used by the Exchange to directly secure the Exchange's obligations to the Exchange's liquidity lenders and that its assets may become subject to a lien in favor of the Exchange's liquidity lenders or otherwise guarantee the Exchange's obligations and; (ii) to authorize the Exchange, and appoint the Exchange (such appointment being coupled with an interest) as such clearing member's attorney-in-fact, to enter into agreements on its behalf in connection with its assets serving as security for the Exchange's obligations to the Exchange's liquidity lenders; and (iii) to acknowledge that the obligations of the Exchange to its liquidity lenders may be greater, and extend for periods of time longer, than the obligations, if any, of such clearing member to the Exchange. The Exchange, as each clearing member's attorney-in-fact, will have authority to enter into agreements on behalf of each clearing member and in each clearing member's name for the

purpose of causing the clearing member's assets to directly secure the Exchange's obligations to the Exchange's liquidity lenders. Any agreement entered into by the Exchange on behalf of clearing members pursuant to this Rule 817 shall bind each clearing member and will contain provisions, including representations, warranties and covenants, required by lenders under any liquidity facility. If there is a default under any such liquidity facility, the assets of the clearing members pledged to secure such liquidity facility may be foreclosed upon by the Exchange's liquidity lenders and applied against the obligations of the Exchange under the related liquidity facility. The clearing members shall take no action, including but not limited to attempting to obtain a court order, that would interfere with the ability of such liquidity lenders to receive the benefit of their contractual remedies in connection with any such foreclosure or that would controvert or assert the invalidity of any provision of these rules. Each clearing member agrees to sign any document or agreement requested by the Exchange to further document the power of attorney set forth and established by these rules.

818. CLOSE-OUT NETTING

818.A. Bankruptcy of the Exchange

If at any time the Exchange: (i) institutes or has instituted against it a proceeding seeking a judgment of insolvency or bankruptcy or any other relief under any bankruptcy or insolvency law or other similar law affecting creditors' rights, or a petition is presented for its winding up or liquidation, and, in the case of any such proceeding or petition presented against it, such proceeding or petition results in a judgment of insolvency or bankruptcy or the entry of an order for relief or the making of an order for the Exchange's winding-up or liquidation, or (ii) approves resolutions authorizing any proceeding or petition described in clause (i) above (collectively, a "Bankruptcy Event"), all open positions in the Clearing House shall be closed promptly.

818.B. Default of the Exchange

If at any time the Exchange fails to comply with an undisputed obligation to pay money or deliver property to a Clearing Member that is due and owing in connection with a transaction on the Exchange or cleared by the Exchange, for a period of five Business Days from the date that the Exchange receives notice from the Clearing Member of the past due obligation, the Clearing Member's open proprietary and customer (including, for this rule, CFTC Regulation Section 30.7 secured and Cleared Swaps Customers) positions at the Clearing House shall, at the election of that Clearing Member, be closed promptly.

818.C. Netting and Offset

At such time as a Clearing Member's positions are closed, the obligations of the Clearing House to a Clearing Member in respect of all of its proprietary positions, accounts, collateral and deposits to the guaranty fund shall be netted, in accordance with the Bankruptcy Code, the Commodity Exchange Act and the regulations adopted thereunder in each case, against the obligations of that Clearing Member in respect of its proprietary positions, accounts, collateral, its obligations as guarantor of the performance of its customers and its then matured obligations to the guaranty fund to the Clearing House and to the Exchange. For clarity all of the property in a Clearing Member's proprietary account or accounts on deposit with the Clearing House, shall be deemed to be subject to a single master netting agreement with the result that any excess which is on deposit with respect to any product category shall be applied to reduce any deficiency of the Clearing Member in any other product category. All obligations of the Clearing House to a Clearing Member in respect of its customer positions, accounts, and collateral shall be separately netted against the positions, accounts and collateral of its customers without regard to product category in accordance with the requirements of the Bankruptcy Code, the Commodity Exchange Act and the Regulations adopted thereunder in each case. At the time a Bankruptcy Event takes place, the authority of the Clearing House, pursuant to Rule 802, to make new assessments and/or require a clearing member to cure a deficiency in its guaranty fund deposit, arising after the Bankruptcy Event, shall terminate. All positions open immediately prior to the close-out shall be valued in accordance with the procedures of Paragraph D of this Rule.

818.D. Valuation

As promptly as reasonably practicable, but in any event within thirty days of the: (i) Bankruptcy Event, or (ii) if a Clearing Member elects to have its open positions closed in a default as described in Paragraph B of this Rule, the date of the election, the Exchange shall, in a manner that is consistent with the requirements of the Commodity Exchange Act and the

regulations adopted thereunder (including, without limitation) Part 190 of the Regulations, fix a U.S. dollar amount (the "Close-out Value") to be paid to or received from the Exchange by each Clearing Member, after taking into account all applicable netting and offsetting pursuant to paragraph C of this Rule.

The Exchange shall value open positions subject to close-out by using the market prices for the relevant market (including without limitation, any over the counter markets) at the moment that the positions were closed-out, assuming the relevant markets were operating normally at such moment. If the relevant markets were not operating normally at such moment, the Exchange shall exercise its discretion, acting in good faith and in a commercially reasonable manner, in adopting methods of valuation to produce reasonably accurate substitutes for the values that would have been obtained from the relevant market if it had been operating normally at the moment that the positions were closed-out.

In determining a Close-out Value, the Exchange may consider any information that it deems relevant. Amounts stated in a currency other than U.S. Dollars shall be converted to U.S. Dollars at the current rate of exchange, as determined by the Exchange. If a Clearing Member has a negative Close-out Value it shall promptly pay that amount to the Exchange.

818.E. Interpretation in Relation to FDICIA

The Exchange intends that certain provisions of this Section be interpreted in relation to certain terms (identified by quotation marks) that are defined in the Federal Deposit Insurance Exchange Improvement Act of 1991 ("FDICIA"), as amended, as follows:

- (1) The Exchange is a "clearing organization."
 - (2) An obligation of a Clearing Member to make a payment to the Exchange, or of the Exchange to make a payment to a Clearing Member, subject to a netting agreement, is a "covered clearing obligation" and a "covered contractual payment obligation."
 - (3) An entitlement of a Clearing Member to receive a payment from the Exchange, or of the Exchange to receive a payment from a Clearing Member, subject to a netting contract, is a "covered contractual payment entitlement."
 - (4) The Exchange is a "member," and each Clearing Member is a "member."
 - (5) The amount by which the covered contractual payment entitlements of a Clearing Member or the Exchange exceed the covered contractual payment obligations of such Clearing Member or the Exchange after netting under a netting contract is its "net entitlement."
 - (6) The amount by which the covered contractual payment obligations of a Clearing Member or the Exchange exceed the covered contractual payment entitlements of such Clearing Member or the Exchange after netting under a netting contract is its "net obligation."
- The By-Laws and Rules of the Exchange, including this Section, are a "netting contract."

819. LIEN ON COLLATERAL

Each Clearing Member hereby grants to the Clearing House a first priority and unencumbered lien against any property and collateral deposited with the Clearing House by the Clearing Member. Clearing Members shall execute any documents required by CME to create and enforce such lien.

820. PERFORMANCE BONDS

Performance bond requirements will be as determined by Exchange staff from time to time.

Subject to the terms and conditions as approved by Exchange staff, the Clearing House will accept as performance bond, cash, equity securities, shares of mutual funds, United States Treasury and agency Securities, Letters of Credit, units in CME's Interest Earning Facility Program, shares in CME's Interest Earning Facility 2 Program, permitted investments allowable under CFTC Regulation 1.25, "readily marketable securities" as defined by Securities and Exchange Commission Rules, as applicable, and "London Good Delivery" gold, as defined by the London Bullion Market Association (as used in this Rule 820, such assets and any proceeds thereof are collectively referred to as "Assets"), all of which must be and remain unencumbered. The Clearing House may include other forms of collateral within the definition of "Assets" upon the approval of the Clearing House Risk Committee and notice to clearing members.

All performance bond collateral, as herein described, shall be placed to the credit of the

member paying the same for its customers' trades or its own (so-called "house") trades as designated by the clearing member. The Clearing House shall value performance bond collateral as it deems appropriate. The clearing member shall transfer the performance bond collateral to the Exchange or to an approved depository for safekeeping in an Exchange account and the Exchange shall retain control over such performance bond collateral. Neither the Exchange nor the Clearing House shall have any obligation or responsibility to preserve, protect, collect or realize upon, and under no circumstances shall the Exchange or Clearing House be liable for, any loss or diminution in value or depreciation in the performance bond collateral maintained pursuant to this rule. A clearing member who maintains performance bond collateral for its benefit pursuant to this rule shall hold the Exchange and Clearing House harmless from all liability, losses and damages which may result from or arise with respect to the care and sale of such performance bond collateral. All initial and additional performance bonds shall be retained by the Clearing House in whole or in part, as Exchange staff may deem necessary, until the trades for which such performance bond collateral has been deposited, have been offset, cash settled, delivered or otherwise closed out as determined by Exchange staff.

Each clearing member shall reimburse the Clearing House for all fees, expenses, charges and costs assessed by a depository against the Exchange with respect to all performance bond collateral maintained in its account, and shall make deposits as may be required by the Clearing House by reason of any depreciation in the market value of such performance bond collateral. If a clearing member defaults to the Clearing House with respect to performance bonds, the performance bond collateral maintained in its account pursuant to this rule shall be taken over by the Clearing House and sold without notice and the proceeds of the performance bond collateral deposited for customers' trades shall be applied against the performance bond requirements for the clearing members' customers' accounts, and the proceeds of performance bond collateral deposited for the house trades shall be applied against the requirements for the clearing member's own (so-called "house") account.

821. EXCESS PERFORMANCE BOND OF CLEARED SWAPS CUSTOMERS

Pursuant to CFTC Regulation 22.13(c), the Clearing House will permit a Clearing Member to transmit performance bond of its cleared swaps customers in excess of the amount required by the Clearing House for such cleared swaps customers positions. Each Clearing Member transmitting such excess shall identify each Business Day, for each cleared swaps customer, the value of performance bond posted in excess of the amount required for such cleared swaps customer.

822.-823. [RESERVED]

824. ADDITIONAL PERFORMANCE BOND

Whenever, in the opinion of the Clearing House Risk Committee, the President of the Clearing House or, in his absence, his delegate, unstable conditions relating to one or more products exist, they may from time to time, call for additional performance bond collateral from clearing members. Such additional performance bond calls may be as much as or more than the original performance bond collateral. The performance bond collateral thus called for may be for one or more contract(s) from one or more clearing member(s) and on long positions, short positions or both.

In the event market conditions and price fluctuations at any time shall cause the Clearing House Risk Committee or the President of the Clearing House or, in his absence, his delegate, to conclude that additional performance bond collateral is required to maintain an orderly market or to preserve fiscal integrity the Clearing House Risk Committee or the President of the Clearing House or his delegate may call for additional performance bond collateral to be deposited with the Clearing House during the next banking hour after demand therefor, or at such times as may be specified. Such additional performance bond collateral may be called from the longs or the shorts or from both.

When the Clearing House Risk Committee or the President of the Clearing House or, in his absence, his delegate, shall be of the opinion that any clearing member is carrying commitments or incurring risk in its proprietary, customer and/or cross-margin accounts, that are larger than is justified by the financial condition of that clearing member, then the Clearing House Risk Committee, the President of the Clearing House or, in his absence, his delegate,

may require additional performance bond collateral of such clearing member which shall be deposited with the Clearing House during the next banking hour after demand therefor, or at such time as may be specified, or a portion of the open positions of said clearing member may be required to be transferred to the books of another clearing member.

825.-826. [RESERVED]

827. SECURITIES LENDING PROGRAM

United States Treasury Bills, Treasury Notes, Treasury Bonds, Treasury Bond Principal Strips, Agency Securities, and other financial instruments approved by Exchange staff, (collectively, "Securities") that are deposited with the Clearing House by clearing members in satisfaction of Guaranty Fund requirements or as performance bond for their own (i.e., "house") trades may be loaned out by the Exchange pursuant to the Securities Lending Program. Clearing members depositing Securities with the Exchange in satisfaction of guaranty fund requirements or as performance bond for house trades that are loaned out pursuant to the Securities Lending Program are deemed to agree that the lending of Securities under arrangements having safeguards consistent with generally accepted market practices will constitute reasonable care of the Securities in the possession of the Exchange or its securities lending custodian.

828.-829. [RESERVED]

830. CROSS-MARGINING

830.A. Definitions

1. **Cross-Margining Affiliate:** An affiliate of a Participating Clearing Member with which such clearing member is cross-margining its positions at the Clearing House and a Cross-Margining Clearing Organization.
2. **Participating Clearing Member:** A clearing member that is cross-margining its positions at the Clearing House with its own or a Cross-Margining Affiliate's positions at a Cross-Margining Clearing Organization.
3. **Cross-Margining Clearing Organization:** A clearing organization that has entered into a Cross-Margining Agreement with the Exchange.
4. **Joint Cross-Margining Program:** A cross-margining program in which the Exchange and one or more Cross-Margining Clearing Organizations each hold a joint security interest in positions, margin and other property of Participating Clearing Members and, if applicable, their Cross-Margining Affiliates.
5. **Guaranteed Cross-Margining Program:** A cross-margining program in which a guaranty is provided by and between the Exchange and one or more Cross-Margining Clearing Organizations and each entity holds an individual security interest in positions, margin and other property of Participating Clearing Members and, if applicable, their Cross-Margining Affiliate.

830.B. Cross-Margining Programs

1. The Exchange may establish cross-margining programs as approved by the Clearing House Risk Committee and the Board. A clearing member may become a Participating Clearing Member to participate in a Joint Cross-Margining Program by establishing with the Clearing House one or more cross-margin accounts for cross-margining positions with either its own positions or those of a cross-margining affiliate at a Cross-Margining Clearing Organization. In order to establish a cross-margin account, a clearing member shall enter into the agreements required by the Exchange, including a Cross-Margined Account Agreement and Security Agreement with the Exchange, the Cross-Margining Clearing Organization, and, if applicable, the member's Cross-Margining Affiliate. That Agreement shall provide, among other things, that the Exchange and the Cross-Margining Clearing Organization shall jointly have a first lien on and security interest in all positions held in the cross-margin account, all related performance bond, and all proceeds of the foregoing, as security for the obligations of the clearing member and, if applicable, its Cross-Margining Affiliate, to the Exchange and the Cross-Margining Clearing Organization. Failure to comply with the terms of such Agreements may constitute an act detrimental to the interest or welfare of the Exchange.

2. A clearing member may become a Participating Clearing Member in a Guaranteed Cross-Margining Program by entering into a Cross-Margining Participant Agreement with the Exchange, the Cross-Margining Clearing Organization, and, if applicable, the clearing member's Cross-Margining Affiliate. That Agreement shall provide, among other things, that a Participating Clearing Member shall immediately be obligated to reimburse the Exchange ("Reimbursement Obligation") in the event the Participating Clearing Member or its Cross-Margining Affiliate defaults in the payment of any obligation to a Cross-Margining Clearing Organization and the Exchange is required to make a guaranty payment to such Cross-Margining Clearing Organization. In addition, the Agreement shall provide that the Exchange shall have a first lien and security interest in all positions held, all related performance bond, and all proceeds of the foregoing, as security for the obligations of the clearing member and, if applicable, its Cross-Margining Affiliate, to the Exchange. Failure to comply with the terms of such Agreement may constitute an act detrimental to the interest or welfare of the Exchange.

The provisions of this Rule 830 and the corresponding sections of the Clearing House Manual shall apply to all CME-cleared positions held pursuant to a cross-margining program and shall supersede all other provisions of the Rules to the extent inconsistent therewith. In addition, the Exchange shall determine what positions will be eligible for cross-margining.

830.C. [Reserved]

830.D. Performance Bonds for Cross-Margining Program

Performance bond requirements for a Joint and Guaranteed Cross-Margining Program shall be determined as set forth in the Cross-Margining Agreement, and that Agreement shall also govern what forms of performance bond will be permitted and how such performance bond will be held.

830.E. Close-Out of Cross-Margin Positions

A Participating Clearing Member may be suspended if it or its Cross-Margining Affiliate, if any, is in default in payment of any obligation, including a Reimbursement Obligation, with respect to a Joint or Guaranteed Cross-Margining Program.

The cross-margin account of a clearing member participating in a Joint Cross-Margining Program may be liquidated by the Clearing House at the request of a Cross-Margining Clearing Organization whether or not the Exchange suspends, or is permitted under the Rules to suspend, such clearing member. Upon the suspension of a Participating Clearing Member, or upon receiving notice from a Cross-Margining Clearing Organization of its suspension of a Participating Clearing Member or its Cross-Margining Affiliate, the Clearing House shall have the right to liquidate the positions in the cross-margin account, convert to cash the performance bond therefor, and dispose of the proceeds thereof, all in accordance with the terms of the Cross-Margining Agreement.

The positions of a clearing member participating in a Guaranteed Cross-Margining Program may be liquidated by the Clearing House in the event that the Participating Clearing Member or its Cross-Margining Affiliate defaults in the payment of any obligation to the Clearing House or a Cross-Margining Clearing Organization. Upon the suspension of a Participating Clearing Member, or upon receiving notice from a Cross-Margining Clearing Organization of its suspension of a Participating Clearing Member or its Cross-Margining Affiliate, the Clearing House may liquidate: the positions of the Participating Clearing Member; all related performance bond; and all proceeds of the foregoing. The Exchange may then apply all such liquidated proceeds to satisfy the Participating Clearing Member's obligations to the Exchange, all in accordance with the terms of the Cross-Margining Agreement.

831.-849. [RESERVED]

MISCELLANEOUS

850. FEES

Exchange fees and/or any transaction surcharges shall be assessed against a clearing member for each side of a transaction traded on, cleared by or processed through the Exchange or the Clearing House as the Board or Exchange staff, as appropriate, may from

time to time prescribe. Detailed information concerning these fees is set forth in the Exchange Fee Schedule and applicable Fee Policy Bulletins available on the CME Group website.

851. [RESERVED]

852. SURCHARGES FOR ERRORS, DELAYS AND OMISSIONS

Exchange staff may establish, and from time to time revise, schedules of surcharges to be imposed upon clearing members for errors, delays and omissions with respect to trade data and certain other information required to be provided to the Clearing House. These surcharges are to be collected by the Clearing House and are in addition to any disciplinary sanctions that may be imposed by Market Regulation, the BCC or CHRC for the violation of Exchange rules.

853. TRANSFERS OF TRADES AND CUSTOMER ACCOUNTS

853.A. Transfers of Trades

1. Subject to the limitations of Rule 854, existing trades may be transferred either on the books of a clearing member or from one clearing member to another clearing member provided:
 - i. The transfer results in the transfer of a trade(s) from one account to another account with identical beneficial ownership; or
 - ii. An error has been made in the clearing of a trade(s) and the error is corrected via transfer within three Business Days after the date on which the error occurred; or
 - iii. The transfer trade is made to reconcile an error, omission or outtrade in accordance with the requirements of Rule 770.

Notwithstanding the foregoing, a transfer may be approved by the President or the Chief Compliance Officer of the Clearing House, or their respective designees, in circumstances where it is determined that a transfer trade is the most appropriate means to remedy an error that results from the good faith acts or omissions of any party and the clearing member(s) consent to such transfer, provided that such approval does not result in an impermissible transfer for offset pursuant to the provisions of Rule 854.B. Any request for approval pursuant to this paragraph requires the clearing member(s) to fully document the circumstances of the error and provide that documentation to the Clearing House.

2. Subject to the limitations of Rule 854, the Chief Regulatory Officer or his designee may, (and, with respect to cleared-only products, the President of the Clearing House or her designee also may), upon request by the clearing member(s), approve a transfer of existing trades either on the books of the same clearing member, or from the books of one clearing member to the books of another clearing member if the transfer is in connection with, or as a result of, a merger, asset purchase, consolidation or similar non-recurring transaction between two or more entities where one or more entities become the successor in interest to one or more other entities.
3. Subject to the limitations of Rule 854, the Chief Regulatory Officer or his designee may, (and, with respect to cleared-only products, the President of the Clearing House or her designee also may), upon request by the clearing member(s), approve a transfer of existing trades either on the books of a clearing member or from one clearing member to another member if the transfer involves a partnership, investment fund or commodity pool and the purpose of the transfer is to facilitate a restructuring or consolidation of such partnership, fund or pool, provided that i) the managing partner or pool operator remains the same; ii) the transfer does not result in the liquidation of open positions; and iii) the pro rata allocation of positions to the new account does not result in more than a de minimis change in the value of the interest of any party.
4. Notwithstanding the foregoing, the Chief Regulatory Officer or his designee may, (and, with respect to cleared-only products, the President of the Clearing House or her designee also may), with the consent of the clearing member(s) involved, permit the transfer and/or offset of existing trades if, in his or her designee's opinion, the situation so requires and such transfer is in the best interests of the Exchange, which may include, but is not limited to, the remedying of an error resulting from the good faith acts or omissions by a party as a means of avoiding a market disruption. The foregoing does not relieve a clearing member of its responsibility under the Rules for circumstances leading to such transfer

and/or offset, and the clearing member may be responsible for demonstrated claims of realized losses incurred by other parties as a result of such errors or omissions in accordance with the provisions of Chapter 6. Additionally, notwithstanding permission for the transfer being granted by the Chief Regulatory Officer or his designee, parties involved in the transfer remain responsible for any violation of Exchange rules resulting from the transfer and may either be summarily sanctioned in accordance with the provisions of Rule 512 or the matter may be referred to the Probable Cause Committee for the consideration of charges.

5. Provided that the transfer is permitted pursuant to Sections 1., 2., 3. or 4. above, transactions in all physically delivered futures contracts except for FX futures contracts must be recorded and carried on the books of the receiving firm at the original trade dates; all other transactions may be recorded and carried at either the original trade date or the transfer date. Futures transactions may be transferred using either the original trade price or the most recent settlement price; options transactions may be transferred using either the original trade price or a trade price of zero. Trades that have been confirmed at an average price pursuant to the provisions of Rule 553 may alternatively be transferred at the average price.
6. All transfers shall be reported to the Clearing House in a form acceptable to the Exchange for the type of transactions involved. The proper indicator must be included in the transfer such that the transactions, including the transaction(s) to reverse an error, clear as transfers. The clearing members involved shall maintain a full and complete record of all transactions together with all pertinent memoranda.
7. Any authority granted to the President of the Clearing House or the Chief Compliance Officer of the Clearing House, or their respective designees, set forth in Section A. will not extend to security-based swap products cleared by the Clearing House.

853.B. Transfers of Customer Accounts

Subject to the limitations of Rule 853.A, after receipt of a signed instruction from a Clearing Member (the "Carrying Clearing Member") to transfer all or a portion of a customer account to another Clearing Member (the "Receiving Clearing Member"), and provided that such instruction contains the customer's name and account number (and, if the transfer is not of the entire account, a description of which portion is to be transferred), and provided that the Receiving Clearing Member agrees to accept the account, the Exchange shall promptly transfer the account (or the relevant portion thereof), without requiring any close-out or rebooking of positions in connection with the transfer, provided that:

1. The transferred positions will satisfy Exchange performance bond requirements at the Receiving Clearing Member; and
2. Any remaining positions in the customer account at the Carrying Clearing Member will satisfy Exchange performance bond requirements.

854. CONCURRENT LONG AND SHORT POSITIONS

Set forth below are the procedures that must be followed for concurrent long and short positions and hold-open accounts.

- A. Concurrent long and short positions in the same commodity and month may be held by a clearing member at the direction of a customer or on behalf of an omnibus account; however it shall be the duty of the clearing member to ascertain whether such positions are intended for offset or to be held open prior to final transmission of position data to the Clearing House.
- B. Concurrent long and short positions in physically delivered contracts subject to spot month position limits that are held by the same owner during the time that spot month position limits are in effect must be offset by transactions executed in the market, by allowable privately negotiated transactions, or fulfilled through the normal delivery process, provided however that trades may be offset via netting, transfer or position adjustment to correct a bona fide clerical or operational error on the day the error is identified and the quantity of the offset does not represent more than two percent of the reported open interest in the affected futures contract month.

Permissible Exceptions

Notwithstanding the foregoing:

1. Trades may be transferred for offset if the trade date of the position being transferred is the same as the transfer date;
 2. An account that becomes concurrently long and short as a result of a futures position that results from an option assignment will be allowed one business day to net such positions; or,
 3. Where the Chief Regulatory Officer or his designee determines, in their respective sole discretion, that permitting an offset via netting, transfer or position adjustment in excess of two percent of the reported open interest will not adversely impact either the affected market or any persons holding open positions in the affected market.
- C. Clearing members which, pursuant to this rule, carry concurrent long and short positions, must report to the Exchange both sides as open positions. When either side or both sides are reduced in accordance with Section B. of this rule, the open positions as reported to the Exchange must be reduced accordingly. Once such positions have been reduced, those positions may not subsequently be re-established as concurrent long and short positions at the Exchange.
- D. The Exchange takes no position regarding the internal bookkeeping procedures of its clearing members which, for the convenience of a customer, may "hold open" a position only on their books. However, the clearing member must accurately report to the Exchange and the Clearing House, as appropriate, large trader positions, long positions eligible for delivery and open interest.
- E. Violations of this Rule may result in summary sanctions in accordance with the provisions of Rule 512 or the matter may be referred to the Probable Cause Committee for the consideration of charges.

855. OFFSETTING DIFFERENT SIZED FUTURES POSITIONS¹

With the consent of the account controller, a clearing member may offset and liquidate long E–Mini or E-Micro futures positions against short regular futures positions, or short E–Mini or E-Micro futures positions against long regular futures positions, held in the same account in the following ratios of E–Mini or E-Micro to regular futures contracts:

| | |
|---|------|
| E–Mini S&P 500 to regular S&P 500: | 5:1 |
| E–Mini Nasdaq 100 Index to regular Nasdaq 100 Index: | 5:1 |
| E–Mini S&P Midcap 400 to regular S&P Midcap 400: | 5:1 |
| E–Mini Currency to regular Currency: | 2:1 |
| E–Mini S&P CNX Nifty Index Futures to E-micro S&P CNX Nifty Index Futures: | 5:1 |
| E–Mini Nikkei 225 (Yen) to regular Nikkei 225 (Yen): | 5:1 |
| E-Micro GBP/USD, EUR/USD, AUD/USD, CAD/USD, JPY/USD, CHF/USD, USD/RMB or CNY, USD/Offshore RMB or CNH to regular Currency | 10:1 |
| E-Micro INR/USD to regular INR/USD | 5:1 |

The clearing member shall notify the Clearing House of offsetting positions by submitting reports to the Clearing House in such form and manner as the Clearing House shall specify. The positions shall be offset at the previous day's settlement price.

The positions being offset shall be transferred to a CME holding account. Long and short positions in the same contract and contract month held in the holding account shall be netted, thus reducing the number of open positions in such contract.

856. NORMALIZATION OF OTC FX SPOT, FORWARD, SWAP AND OPTIONS TRANSACTIONS FOR CLEARING²

For over-the-counter (OTC) foreign exchange (FX) transactions submitted for clearing and any non-standard specification of the transaction as defined by the price format shall be normalized by CME Group Clearing to standard or normal specifications by the following "normalization process."

Instrument: Currency 1/Currency 2 (CCY1/CCY2)

¹ Revised September 2008; March 2009; September 2010; December 2010; January 2013.

² Adopted April 2011.

Generically, for spot and forward OTC FX transactions...

Standard or Normal: Buy (B)/Sell (S) CCY1 notional amount at CCY2 per CCY1 rate.

Non-standard or Non-normal: B/S CCY2 notional amount at CCY2 per CCY1 rate.

To normalize:

1. Convert B to S, or S to B
2. Convert CCY2 notional to CCY1: CCY2 amount divided by CCY2 per CCY1 rate to obtain CCY1 amount.

For example, for Instrument: EUR/USD ...

Standard: EUR/USD- Quote USD per EUR; notional amount in EUR

Trade comes in as SELL €15 million at 1.350000 USD per EUR →BUY \$20,250,000 (€15 million x 1.350000 USD/EUR)

Non-standard: EUR/USD- Notional amount in USD, but quote still in USD per EUR.

Trade comes in as buy \$20 million at 1.350000 USD per EUR →SELL €14,814,814.81 (\$20 million / 1.350000 USD/EUR).

To normalize the non-standard EUR/USD transaction, CME Clearing shall:

3. Convert Buy to Sell, or Sell to Buy
4. Convert USD notional to EUR: USD amount divided by USD per EUR rate.

Example: The trade "BUY \$20 million at 1.350000 ⇒SELL €14,814,814.81 (\$20/1.350000) at 1.350000 USD per EUR" shall be normalized and held in CME Clearing as:

The trade "SELL €14,814,814.81 (\$20/1.350000) at 1.350000 USD per EUR⇒BUY \$20 million at 1.350000."

For swap OTC FX transactions, ...

Standard or Normal: Leg 1 B/S CCY1 notional amount at CCY2_t per CCY1 rate.

Leg 2 S/B CCY1 notional amount at CCY2_{t+n} per CCY1 rate.

Non-standard or Non-normal:

Leg 1 B/S CCY2 notional amount at CCY2_t per CCY1 rate.

Leg 2 S/B CCY2 notional amount at CCY2_{t+n} per CCY1 rate.

To normalize:

1. Convert B to S, or S to B
2. Convert CCY2 notional to CCY1: CCY2 amount divided by CCY2 per CCY1 rate to obtain CCY1 amount.

For example, for instrument: EUR/USD...

Standard: Leg 1 EUR/USD- Quote USD per EUR; notional amount in EUR

Leg 2 EUR/USD- Quote USD per EUR; notional amount in EUR

Trade comes in as "Leg 1 BUY €20 million at 1.305000 ⇒SELL \$26,100,000 (\$20 million x 1.305000) at 1.305000 USD per EUR; Leg 2 SELL €20 million at 1.315000 USD per EUR (1.3050 + 0.0100 swap points)"

Non-Standard: Leg 1 EUR/USD- Notional amount in USD, but quote still in USD per EUR.

Leg 2 EUR/USD- Notional amount in USD, but quote still in USD per EUR.

Trade comes in as "Leg 1 SELL \$26.1 million at 1.305000 ⇒BUY €20 million (\$26.1 million / 1.305000) at 1.305000 USD per EUR; Leg 2 BUY \$26.3 million at 1.315000 USD per EUR (1.3050 + 0.0100 swap points)."

To normalize the non-standard EUR/USD transaction, CME Clearing shall:

3. Convert Buy to Sell, or Sell to Buy
4. Convert USD notional to EUR: USD amount divided by USD per EUR rate.

Example: The trade "Leg 1 SELL \$26.1 million at 1.305000 ⇒BUY €20 million (\$26.1 million / 1.305000) at 1.305000 USD per EUR; Leg 2 BUY \$26.3 million at 1.315000 USD per EUR (1.3050 + 0.0100 swap points)" shall be normalized and held in CME Clearing as:

The trade “Leg 1 BUY €20 million at 1.305000 ⇒SELL \$26,100,000 (\$20 million x 1.305000) at 1.305000 USD per EUR; Leg 2 SELL €20 million at 1.315000 USD per EUR (1.3050 + 0.0100 swap points)”

For option OTC FX transactions, ...

Standard or Normal: B/S CCY1/CCY2 CALL (PUT) at STRIKE PRICE in units of CCY2 per CCY1 for a notional amount of CCY1 for a premium in CCY2 (CCY1 amount x premium price in CCY2 per CCY1, that is, CCY2 pips) or % of CCY1 (CCY1 premium / CCY1 notional amount).

Non-standard or Non-normal: B/S CCY1/CCY2 CALL (PUT) at STRIKE PRICE in units of CCY2 per CCY1 for a notional amount of CCY2 for a premium in CCY1 (CCY2 amount / premium price in CCY2 per CCY1, that is, CCY1 pips) or % of CCY2 (CCY2 premium / CCY2 notional amount).

To normalize:

1. Retain B/S direction
2. Convert CCY2 Put to CCY1 Call, CCY2 Call to CCY1 Put
3. Convert CCY2 notional to CCY1: CCY2 amount divided by Strike Price expressed in CCY2 per CCY1.
4. Process original premium amount and currency.
5. Take premium amount and divide by CCY1 notional to express price in CCY1 terms for reference purposes.

For example, for Instrument: EUR/USD ...

Standard: EUR/USD- Quote USD per EUR; notional amount in EUR, premium in either % of EUR notional (EUR premium) or USD pips (USD premium).

Trade comes in as BUY EUR/USD PUT at 1.350000 USD per EUR for a notional amount of €20 million with premium of \$100,000 (€20 million x option price of 0.0050 USD per EUR, that is, USD pips) or 1.0% of €20 million (€200,000 premium / €20 million) → SELL EUR/USD PUT at 1.350000 USD per EUR for a notional amount of €20 million with premium of \$100,000 (€20 million x option price of 0.0050 USD per EUR, that is, USD pips) or 1.0% of €20 million (€200,000 premium / €20 million).

Non-standard: EUR/USD- Notional amount in USD, but quote still in USD per EUR, premium in either % of USD notional (USD premium) or EUR pips (EUR premium).

Trade comes in as BUY EUR/USD PUT at 1.350000 USD per EUR for a notional amount of \$20 million with premium of €170,100 (\$20 million x option price of 0.008505 EUR per USD, that is, EUR pips) or 1.0% of \$20 million (\$200,000 premium / \$20 million) → SELL EUR/USD PUT at 1.350000 USD per EUR for a notional amount of \$20 million with premium of €170,100 (\$20 million x option price of 0.008505 USD per EUR, that is, EUR pips) or 1.0% of \$20 million (\$200,000 premium / \$20 million).

To normalize the non-standard EUR/USD transaction, CME Clearing shall:

6. Retain B/S direction
7. Convert USD Put to EUR Call, USD Call to EUR Put
8. Convert USD notional to EUR: USD amount divided by Strike Price expressed in USD per EUR.
9. Process original premium amount and currency.
 - a. Take premium amount and divide by EUR notional to express price in EUR terms for reference purposes.

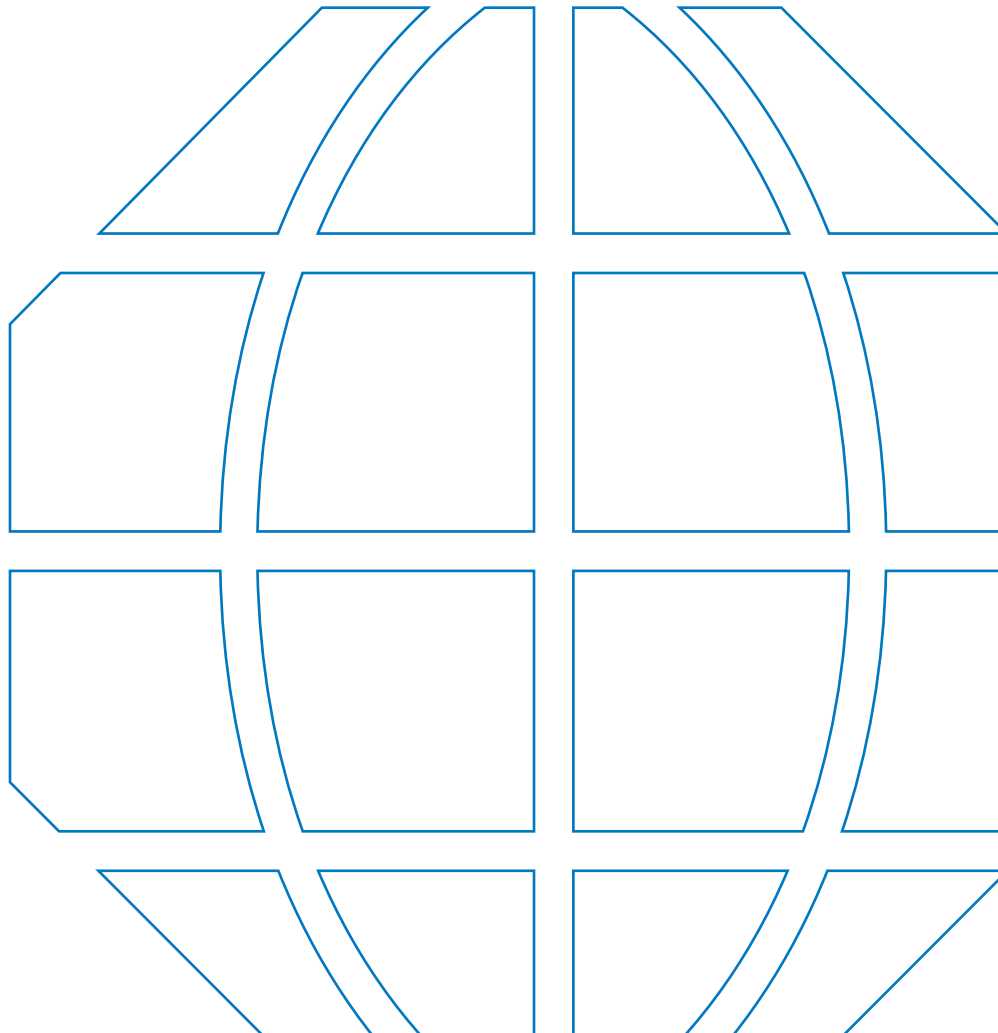
Example: Trade comes in as BUY EUR/USD PUT at 1.350000 USD per EUR for a notional amount of \$20 million with premium of €170,100 (\$20 million x option price of

0.008505 EUR per USD, that is, EUR pips) or 1.0% of \$20 million (\$200,000 premium / \$20 million) → SELL EUR/USD PUT at 1.350000 USD per EUR for a notional amount of \$20 million with premium of €170,100 (\$20 million x option price of 0.008505 USD per EUR, that is, EUR pips) or 1.0% of \$20 million (\$200,000 premium / \$20 million) shall be normalized and held in CME Clearing as:

BUY EUR/USD CALL at 1.350000 USD per EUR for a notional amount of €14,814,814.81 (\$20 million/1.350000 USD per EUR) with a premium of €170,100 (\$20 million x option price of 0.008505 EUR per USD, that is, EUR pips) or 1.148% of €14,814,814.81 (€170,100 / €14,814,814.81).

(End Chapter 8)

CME Clearing Financial Safeguards



CME Group Inc. is the parent company of Chicago Mercantile Exchange Inc. (CME). CME Clearing, a division of CME, is one of the world's leading central counterparty clearing services. CME Clearing provides clearing and settlement services for exchange-traded contracts and cleared over-the-counter (OTC) derivatives transactions. CME Clearing applies robust risk management standards and applicable CFTC customer protection standards for all products it clears.

CME Clearing brings buyers and sellers together through numerous venues including the CME Globex electronic trading platform, open outcry trading facilities in Chicago and New York, cleared privately negotiated transactions, and an array of clearing services offered through CME ClearPort. CME Clearing serves as the counterparty to every trade, becoming the buyer to each seller and the seller to each buyer, limiting credit risk and therefore mitigating risk of default.

CME Clearing's integrated clearing function is designed to ensure the safety and soundness of our markets, serving the risk management needs of customers around the globe by offering clearing services for a wide range of global benchmark products. CME Clearing continues to structure its services, safeguards, and registration status to best serve the evolving markets to which it provides clearing services. This includes business transacted on CBOT, CME, COMEX, NYMEX, Green Exchange (GEX) and Dubai Mercantile Exchange (DME), as well as OTC transactions cleared through CME ClearPort.

CME Clearing is vitally aware of its role in global markets and is confident that our operational standards paired with our financial safeguards provide an effective set of risk management tools and capabilities that result in industry leading risk management capabilities.

This brochure is intended to provide an overview of CME Clearing's financial safeguard system. For additional details and applicable rules, please reference the CME, CBOT, and NYMEX rulebooks published on CME Group's website (www.cmegroup.com).

FINANCIAL SAFEGUARDS OVERVIEW

Risk management and financial surveillance are principal functions of CME Clearing's financial safeguards system. The safeguards are designed to provide the highest level of security and the early detection of unsound financial practices. The safeguards aim to protect and mitigate the consequences to clearing members and their customers from a participant default.¹ CME Clearing's financial safeguards system is continually evaluated and updated to reflect the most advanced risk management and financial surveillance techniques. The financial safeguards system is administered by the Risk Management Department with collaboration from management from the Audit, Banking and Collateral Services, Legal and Market Regulation departments.

For products other than cleared OTC interest rate swaps (IRS) and cleared OTC credit default swaps (CDS), CME Clearing is overseen on major risk management policy issues, financial safeguards, and financial surveillance and membership issues by the Clearing House Risk Committee (CHRC).²

For general matters related to cleared OTC IRS products, including risk management policies and practices, CME Clearing has established an IRS Risk Committee.³ For general matters relating to cleared OTC CDS products, including risk management policies and practices, CME Clearing has established a CDS Risk Committee.⁴ Each of these committees is chaired by one or more members of the CME Group Board of Directors with broader participation largely comprised of market participants, who typically comprise a majority representation, and independent representatives.

Clearing members may apply for clearing privileges for all or a subset of cleared products. Membership requirements may vary by product class, but generally include maintaining adequate financial resources, contributing to each applicable guaranty fund, satisfying risk-based capital requirements, and demonstrating adequate knowledge and experience in the desired products including the appropriate risk management policies and procedures.

CME Clearing is registered with the U.S. Commodity Futures Trading Commission (CFTC) as a derivatives clearing organization (DCO). CME Clearing provides clearing services to a variety of CFTC-registered designated contract markets (DCMs), including CME, CBOT, NYMEX, COMEX, DME, and GEX. CME Clearing also accepts trades through CME Clearport, a flexible clearing service that allows market participants to transact trades on OTC terms and submit them for clearing, either clearing products as OTC swaps or as futures (through an exchange-of-futures-for-swaps, or EFS, transaction), pursuant to applicable rules. CME Clearing provides clearing services to the OTC markets through uniquely designed services for the IRS and CDS markets. In order to underpin its role as the central counterparty to market participants utilizing products in these various markets, CME Clearing has three independent guaranty funds and financial safeguards waterfalls (as further explained below): one for IRS, one for CDS, and one for futures and cleared OTC products other than IRS or CDS (the Base guaranty fund).

¹ As provided in Rule 802.A.1, a clearing member is in default when it "fails to promptly discharge any obligation to" CME Clearing.

² CME Rule 403 (Clearing House Risk Committee).

³ CME Rule 8G27 (IRS Risk Committee).

⁴ CME Rule 8H27 (CDS Risk Committee).

FINANCIAL INTEGRITY OF CME CLEARING

CME Clearing serves as the counterparty to every cleared transaction, becoming the buyer to each seller and the seller to each buyer, and limiting credit risk by guaranteeing financial performance of both parties. Each clearing member assumes performance and financial responsibility for all transactions it clears, including transactions cleared on behalf of its customers and on behalf of the clearing member and its affiliates.

CME Clearing utilizes a variety of risk management metrics to evaluate clearing members' ability to withstand changing market dynamics. Each clearing member is accountable to CME Clearing as the guarantor for payment and performance bond obligations arising from the accounts it clears. CME Clearing relies on the prudent oversight and evaluation of individual customers by each clearing member, and evaluates clearing members for the adequacy of their customer credit- and risk-monitoring.

CME Clearing is committed to providing clearing firms with fundamental risk management tools to promote and protect the financial integrity of the market including the interest of clearing members, their customers, and CME Clearing.



PRE-EXECUTION RISK CONTROLS

CME Globex

CME Globex is the world's leading electronic trading platform, providing access to a broad array of futures and options products. CME Globex offers high-speed execution, vast capabilities, direct market access, fairness, transparency, anonymity and global distribution. CME Globex is accessible nearly 24 hours a day throughout the trading week.

Risk management services on CME Globex include Globex Credit Controls, Drop Copy service, and Cancel on Disconnect functionality designed to protect CME Globex customers and clearing firms.

Globex Credit Controls

CME Globex Credit Controls provides pre-execution risk controls that enable administrators to set credit limits through the CME Globex Credit Controls (GC2) tool. Risk administrators are able to define trading limits and select real-time actions if those limits are exceeded, including e-mail notification, order blocking and order cancellation.

Drop Copy

Drop Copy service allows market participants to receive real-time copies of CME Globex execution reports and reject messages as they are sent over iLink sessions. Features include the ability to monitor orders and activity, as well as aggregate execution and reject messages.

Cancel on Disconnect

Upon an involuntarily dropped CME Globex to iLink user connection, Cancel on Disconnect (COD) functionality cancels all resting session/day futures and options orders for that user to protect market participants from position changes without the ability to monitor activity.

CME ClearPort

CME ClearPort is a comprehensive set of flexible clearing services for global OTC markets backed by CME Clearing. CME ClearPort offers an array of clearing services that depend on the nature of the product traded, allowing users to submit bilaterally negotiated trades for clearing. It has the capacity to report transactions in multiple asset classes and provides significant mitigation of counterparty risk and neutral valuations across asset classes.

CME ClearPort offers enterprise-wide credit limits, primarily used by clearing member administrators to allow for prudent risk management. Clearing members control the creation of accounts, permission tradable products, set position limits, and establish overall performance bond limits.

FINANCIAL SAFEGUARDS SYSTEM

CME Clearing has established a financial safeguard system to provide optimal risk management protections. CME Clearing provides clearing services for a variety of products and has developed independent financial safeguards to best serve the unique attributes of the market infrastructure serving particular products. Each clearing member is required to participate in each applicable financial safeguards system package for the products it is eligible to clear.

CME Clearing employs a variety of tools and methods to manage risk including, mark-to-market functionality, performance bond requirements, and account identification as standard risk management practices across all asset classes, and additional procedures specific to more dynamic markets.

CME Clearing firms are subject to stringent capital, operational, and risk management standards as a condition of clearing membership. These clearing firm standards are augmented by CME Clearing risk management and financial surveillance techniques that are designed to:

- Estimate potential market exposures
- Prevent the accumulation of losses
- Ensure appropriate integrity and capability of clearing members

- Ensure that sufficient resources are available to cover future obligations
- Result in the prompt detection of financial and operational weaknesses
- Allow for swift and appropriate action to rectify any financial problems and protect market participants

Mark-to-Market

CME Clearing promotes financial stability throughout the financial system by monitoring and removing accumulated debt obligations among market participants. At each settlement cycle, CME Clearing determines the change in market value of all open positions from the prior settlement cycle and communicates to respective clearing members for settlement. Debt obligations from option contracts are immediately removed when the option buyer pays the premium (cost of the option) at the time of purchase and subsequently as positions are marked-to-market.

CME Clearing's basic standard is to mark open positions to market at least twice a day, require payments from clearing firms whose positions have lost value, and make payments to clearing firms whose positions have gained value. For select cleared-only markets, positions are marked-to-market daily, with the capability to

mark-to-market more frequently as conditions warrant.

CME Clearing establishes minimum performance bond requirements for exchange-traded and OTC products including CDS and IRS. During each settlement cycle, CME Clearing captures and collects performance bond for any new positions and determines the change in value of existing positions. Cash settlement occurs for the mark-to-market on open futures positions and the option premium associated with new option positions, known as settlement variation. Settlement variation for open option positions can be satisfied with collateral as part of performance bond requirements. These processes remove accumulated debt obligations from the system while ensuring that CME Clearing holds sufficient collateral to protect against potential losses that may accumulate prior to the next settlement cycle.

Settlement variation payments through CME Clearing averaged \$3.2 billion per day for the twelve months ending December 30, 2011 and reached a record of \$18.5 billion on October 13, 2008.

FINANCIAL SAFEGUARDS SYSTEM, continued

Performance Bond Requirements

Performance bond (also referred to as margin) requirements are good-faith deposits to guarantee financial performance on open positions. CME Clearing establishes minimum initial and maintenance performance bond levels for all cleared products. CME Clearing requires that clearing members post maintenance performance bond levels, which represent the minimum amount of protection against potential losses of a position or portfolio. Any deficit in a clearing member's performance bond requirement results in a direct debit to the clearing member's account at a designated settlement bank.

CME Clearing requires that clearing members obtain initial performance bond levels from a customer when an account is new or when the account's equity falls below minimum maintenance requirements set by CME Clearing, allowing customers to absorb some losses before issuance of another performance bond call. When performance bonds on deposit at the customer level fall below the maintenance requirement, the account is re-margined at the required (higher) initial performance bond level resulting in a direct debit to the clearing members account at its settlement bank. Clearing members may impose more stringent performance bond

requirements on their customers than the minimums established by CME Clearing.

Performance bond requirements vary by product, and are based on, and adjusted for, historical and implied price volatilities, market composition, current and anticipated market conditions, and other relevant information. In setting performance bond requirements, CME Clearing monitors historical price and implied volatility movements covering short-, intermediate-, and long-term data as well as liquidity, concentration, seasonality and other factors.

For futures and options on futures, performance bond levels are established to cover at least 99 percent of expected price changes for a given product within a given historical period, providing further quantitative and qualitative considerations based on market risk. Actual performance bond requirements may exceed this level for some products. Performance bond requirements for options reflect movements in the underlying futures price, volatility, time to expiration and other risk factors, and adjust automatically each day to reflect the unique and changing risk characteristics of each option series.

To compute performance bond requirements for exchange-traded futures, CME Clearing

utilizes Standard Portfolio Analysis of Risk (CME SPAN), a system developed and implemented by CME Clearing. CME SPAN bases performance bond requirements on the overall risk of the portfolios, using parameters determined by CME Clearing, providing transparency and the ability to replicate margin computations by end users. CME SPAN simulates the effects of changing market conditions and uses tailored options pricing models to determine a portfolio's overall risk. It treats all products uniformly while recognizing the unique features of options. In standard options pricing models, three factors most strongly affect options values: underlying price, volatility (variability of the underlying price), and time to expiration. As these factors change, positions may gain or lose value. CME SPAN constructs scenarios of price and volatility changes to simulate what the entire portfolio might reasonably lose over a specified time horizon. The resulting CME SPAN performance bond requirement covers this potential loss. Additionally, options purchased must be paid for in full and, therefore, the value is added to account equity. Conversely, the value of options sold is added to the overall performance bond requirement for the account. CME Clearing mandates stringent minimum performance bonds for short option positions.

FINANCIAL SAFEGUARDS SYSTEM, continued

CME SPAN is the industry's standard performance bond system licensed by CME Clearing to exchanges and clearing organizations around the world. CME Clearing requires "gross" performance bonds for customer segregated and customer sequestered positions in CME, CBOT⁵, COMEX and NYMEX products. The clearing member must deposit performance bonds for each open position (long or short) held at each clearing cycle, with appropriate allowances for risk offsets. CME Clearing allows for "net" performance bonds for non-segregated or proprietary positions.

For cleared OTC IRS and cleared OTC CDS, performance bond levels are established to cover at least 99 percent of expected price changes for a given product within a given historical period, providing further quantitative and qualitative considerations based on market risk. CME Clearing applies a multi-factor risk model to compute margin requirements for CDS. The multi-factor risk model captures the impact of overall macro-economic price risks and event risk at

the sector, single name, liquidity, and basis levels. The methodology provides 99 percent coverage over a five-day period. CME Clearing applies a historical value-at-risk model to compute margin requirements for IRS. The model achieves 99 percent coverage over a five-day period by scaling observed historical returns by exponentially-weighted moving average volatilities.

For both cleared OTC IRS and cleared OTC CDS, CME Clearing continually monitors volatility, performs backtesting, and reviews margin coverage to ensure appropriate coverage is maintained both at a position and portfolio level, with the ability to demand additional collateral when required to maintain desired coverage. CME Clearing allows for "net" performance bonds for clearing members' proprietary positions in these products. CME Clearing calculates performance bond requirements for each customer, collecting gross performance bond for the aggregate customer sequestered account.

Concentration Performance Bond

CME Clearing also maintains a concentration performance bond program, which allows CME Clearing to charge additional performance bond requirements when a clearing member's potential market exposures become large relative to the financial resources available to support those exposures.

Guaranty Funds

CME Clearing's rules are designed to maximize the liquidity and safety of the pool of guaranty funds. Guaranty fund contributions to the Base guaranty fund are sized to cover a default to CME Clearing by the largest net debtor,⁶ and are computed as the greater of \$500,000 or the results of a formula under which 95 percent of the total requirement is based on the clearing member's proportionate contribution to aggregate risk performance bond requirements over the prior three months and the remaining 5 percent is based on the clearing member's contribution to risk-weighted transaction activity over the prior three months.

⁵ Clearing firms are optionally allowed to post net margin for CBOT customer positions, if they also agree to forego utilization of long option value in CME Clearing's calculation of clearing level performance bond requirement. This optional CBOT performance bond calculation profile is due to be phased out by November 2012.

⁶ Clearing members that clear OTC products in the Base guaranty fund must maintain a minimum guaranty fund deposit of \$2.5 million.

FINANCIAL SAFEGUARDS SYSTEM, continued

The CDS Guaranty Fund is sized to cover defaults by the two largest net debtors. Individual Clearing Member contributions are computed as the greater of \$50 million or the Clearing Member's proportional share of the fund based on (a) a 30-day trailing average of their Potential Residual Loss (95%) and (b) a 30-day trailing average of their Gross Notional (5%).

The IRS Guaranty Fund is sized to cover defaults by the two largest net debtors. Individual Clearing Member contributions are computed as the greater of \$50 million or the Clearing Member's proportional share of the fund based on (a) a 30-day trailing average of their Potential Residual Loss, which is the tail risk the Clearing Member brings to the Clearing House (90%) and (b) a 30-day trailing average of their Gross Notional (10%).

CME Clearing recomputes guaranty fund requirements on an ongoing basis and requires clearing members to deposit any additional required funds at the beginning of each quarter for the Base guaranty fund and at the beginning of each month for both the IRS and CDS guaranty funds, or more frequently as conditions warrant. As of December 30, 2011, the aggregate contribution requirements

across all three guaranty funds totaled \$4.5 billion. As more fully discussed below, assessment powers augment funds on deposit in the guaranty fund.

Acceptable Collateral

CME Clearing determines the acceptability of various collateral types, in accordance with applicable CFTC regulations, and determines appropriate haircuts as well as requirement type eligibility (core, reserve, concentration or guaranty fund). Active clearing members may meet performance bond requirements using a wide variety of collateral, which may include:

- Cash, including USD and select foreign currencies
- U.S. Treasuries, including TBILL, TBOND, TNOTE, TSTRIP, TLGP
- U.S. Agencies, including select discount notes and bills, select coupon bearing instruments, select mortgage backed securities
- Select Foreign Sovereign Debt
- Letters of credit
- Physical gold

- Stocks, including select stock from S&P 500 Index
- Specialized collateral programs including:
 - Money market mutual fund program
 - Tri-party collateral management program for pledging alternative collateral
 - Cash with interest on trust ledger of participating banks

FINANCIAL SAFEGUARDS SYSTEM, continued

Securities are revalued on a daily basis, at minimum, and are subject to prudent haircuts. Foreign cash is subject to haircuts in selected circumstances. Various forms of collateral are also subject to concentration and diversification limits. CME Clearing offers a choice of several different collateral management programs, providing efficient and cost-effective solutions for clearing members' collateral management needs. Acceptable collateral may vary by account class and account type, please refer to the following link for further details <http://www.cmegroup.com/clearing/financial-and-collateral-management/index.html>.

Customer Protection

Customers face credit risk in doing business through any particular futures commission merchant (FCM), so each customer's selection process for a suitable FCM is important. While the laws, rules and regulations applicable to segregation of customer positions and collateral for products traded in regulated markets are designed to protect customers from the consequences of an FCM's failure, they may not provide complete protection if the FCM's default to CME Clearing results from a shortfall in customer segregated (or sequestered) funds (e.g., if the FCM's default is caused by another customer failing to meet its financial obligations to the FCM). Protection

against a customer-caused default rests primarily with the management of the clearing member and its internal risk management controls. Generally, a clearing organization's role in the customer protection process is to monitor risk management requirements to provide oversight, require all customers to post adequate performance bonds, administer financial surveillance programs designed to monitor the financial viability of FCM clearing members, and, when necessary, impose specific remedies in an effort to avert the consequences of financial deterioration of a clearing member.

Segregation and Sequestration of Customer Positions and Collateral

CFTC regulations require customer positions and collateral to be segregated or kept separate from the positions and collateral of the FCM clearing member. The requirements apply directly to the activity and accounting by the clearing member and are further detailed in CME rules. CME Clearing has adopted rules for customer OTC derivatives accounts (known as customer sequestered accounts) that parallel CFTC regulations for customer segregated accounts. These rules are supported by CFTC Part 190 Bankruptcy regulations and are designed to protect customers in the event of insolvency or financial instability of their FCM clearing member.

CME Clearing's Audit Department routinely inspects clearing member records to monitor compliance with segregation and sequestration requirements. The integrity of segregation and sequestration relies on the accuracy and timeliness of the information provided to CME Clearing by FCM clearing members. Violations by a clearing member of segregation or sequestration requirements are considered serious infractions and can result in imposition of significant regulatory penalties.

Capital Requirements for Clearing Members

CME Clearing members that are subject to CFTC regulation are required to maintain Adjusted Net Capital (ANC) at prescribed levels. All active clearing members are required to maintain the greatest of:

- \$5,000,000;⁷
- CFTC minimum regulatory capital requirements (see below); or
- SEC minimum regulatory capital requirements

⁷ Or such other minimum as may be established for particular products.

FINANCIAL SAFEGUARDS SYSTEM, continued

CME Clearing and the CFTC have adopted a risk-based capital requirement as the regulatory minimum capital requirement. This requirement is computed as 8 percent of domestic and foreign domiciled customer and 8 percent of non-customer (excluding proprietary) risk maintenance performance bond requirements for all domestic and foreign futures and options on futures contracts,⁸ excluding the risk margin associated with naked long option positions and any cleared OTC contracts.

Either in conjunction with or separately from being a clearing member for futures and options on futures listed by CME, CBOT, NYMEX and/or COMEX, a firm may have become an OTC clearing member, an IRS clearing member or a CDS clearing member. OTC, IRS and CDS clearing members are subject to the requirements established within the relevant rule set.

As set forth below, minimum capital requirements for a clearing member that

⁸ Any risk maintenance performance bond requirements for cleared OTC products must also be included in the calculation.

clears OTC derivatives depend upon the categories of OTC products the firm is entitled to clear:

- \$50,000,000 if the clearing member will clear only commodity (i.e. agricultural, metal, and energy) and /or foreign exchange OTC products;
- \$50,000,000 if the clearing member will clear the above products and CDS or IRS;
- For bank clearing members, capital is defined as Tier 1 Capital, as defined in accordance with regulations applicable to the bank clearing member; and
- For additional information on OTC clearing capital requirements, please refer to CME Rule 8Fo4 for OTC derivatives, CME Rule 8Ho4 for CDS and CME Rule 8Go4 for IRS.

The Clearing House Risk Committee, the IRS Risk Committee, CDS Risk Committee or the Clearing House may prescribe additional capital requirements or grant exemptions.

ANC is computed based on the following formula:

Current Assets

– Adjusted Liabilities

– Capital Charges

Adjusted Net Capital

Current Assets: Cash and other assets that are reasonably expected to be realized as cash, or sold, during the next twelve months. However, certain assets such as prepaid expenses, deferred charges, and unsecured receivables from customers, non-customers, subsidiaries and affiliates, which would be classified as current under generally accepted accounting principles, are deemed non-current. Exchange memberships are also reflected as non-current assets.

Adjusted Liabilities: The clearing member's total liabilities less the liabilities which have been subordinated to the claims of general creditors.

Capital Charges: Regulatory capital charges primarily encompass percentage deductions ("haircuts") on the following:

Speculative proprietary futures and options positions

Proprietary inventories, fixed price commitments and forward contracts

Undermargined customer, noncustomer and omnibus accounts

Marketable securities

FINANCIAL SAFEGUARDS SYSTEM, continued

Capital requirements are monitored by CME Clearing's Audit Department. Capital requirements vary to reflect the risk of each clearing member's positions as well as CME Clearing's assessment of each clearing member's internal controls, risk management policies and back office operations. Clearing members which are members of all of CME Group Exchanges (CME, CBOT, NYMEX and COMEX) must assign to CME Clearing two CME memberships, two IMM memberships, two IOM memberships, one GEM membership, two full CBOT memberships, two full NYMEX memberships and one full COMEX membership. To obtain clearing privileges for a single CME Group Exchange, a firm must meet the membership requirements of that particular Exchange. To obtain clearing privileges for two CME Group Exchanges, firms need to meet the membership requirements of those particular Exchanges.

Clearing members that are only entitled to clear OTC derivatives products are subject to capital and membership requirements based on the particular products cleared.

Finally, CME, CBOT and NYMEX/COMEX rules generally require owners of five percent or more of the equity securities of a clearing member to guarantee obligations arising out of house (non-customer and proprietary

accounts of the clearing member to the extent of their ownership interest. Owners of 50 percent or more must guarantee 100 percent of the clearing member's house obligations. This parent guarantee provides a high level of assurance that obligations arising out of trades made and positions held by owners or affiliates of clearing members are promptly discharged. Additionally, per the terms of Rule 901G, CME staff may require a guaranty in situations where clearing firms are subject to common ownership.

Financial Surveillance

Recognizing the need to monitor the financial condition of clearing members, CME Clearing's Audit Department, in conjunction with other self-regulatory organizations, operates a sophisticated financial surveillance program. The program has several important aspects, as outlined below:

Reporting. Clearing members must calculate segregation and sequestered requirements and ensure compliance with capital requirements on a daily basis. In addition, firms must submit to the Audit Department full financial statements monthly, provide certified financial statements once a year, and submit more frequent reports (daily or weekly) as directed. OTC Clearing Members regulated by another regulatory authority must submit to CME annual audited financial statements as well as

all unaudited financial statements provided to its primary regulator within five days after such statements are provided to its regulator.

Notification. Clearing members are required to report any failure to meet segregation, sequestered, foreign futures or foreign options secured amount, or minimum capital requirements. Clearing members also must notify CME Clearing prior to any significant business transaction, any significant change in operations, or significant declines in net capital.

Inspection. Generally, each clearing member is subject to a financial/operational review every year. The reviews are tailored to focus on the specific risks of the clearing member. All such inspections are performed on an impromptu basis.

Information Sharing. CME Clearing participates in formal agreements with other domestic and foreign regulatory authorities, as well as clearing and self-regulatory organizations. As part of these agreements, CME Clearing regularly exchanges financial and operational information about joint clearing members with other participating markets. Recognizing that the financial marketplace spans the globe, CME Clearing was instrumental in developing

FINANCIAL SAFEGUARDS SYSTEM, continued

the International Information Sharing Memorandum of Understanding, which established a framework for participating exchanges and clearing organizations worldwide to share information relevant to managing global market emergencies. CME Clearing also seeks broader cooperation between clearing organizations through such industry forums as the Unified Clearing Group, CCP 12, the Joint Audit Committee, the Intermarket Financial Surveillance Group and the DCO Risk Committee.

Intra-Day Monitoring

CME Clearing monitors intra-day price movements and trading activity throughout the trading session. To assess the impact of these price changes on clearing members, intra-day mark-to-market calculations are performed on clearing member and customer positions and reviewed by CME Clearing throughout the day and overnight. The risk management team may contact exchanges or clearing organizations to follow up on clearing firm activity at their respective organizations. On a daily basis, CME Clearing conducts stress testing of clearing member portfolios and individual customer accounts of their large customers. Numerous stress scenarios have been modeled to reflect a diverse set of possible market events. Stress results

are evaluated against performance bond on deposit and clearing member adjusted net capital. Results of stress tests may lead CME Clearing to request that a clearing member provide additional information about its customer accounts, such as whether offsetting positions for CME-cleared products exist in other markets. In some cases, stress test results may cause CME Clearing to increase a clearing member's performance bond requirement, capital requirements, or require a clearing member to reduce or transfer positions.

Market Regulation

Through CME Group's Market Regulation Department, CME Clearing's risk management team has access to specific account position information for clearing members' large individual customer accounts. Such position information, which is maintained on a highly confidential basis, allows the identification of concentrated positions as they arise and the aggregation of positions that may be owned by common principals through several different clearing members. Knowledge of concentrated or high-risk positions, coupled with information routinely gathered on the cash and/or related derivative markets, enables CME Clearing to respond rapidly to market situations that might adversely affect the

financial integrity of CME Clearing or the financial stability of a clearing member.

Clearing Member Risk Reviews

CME Clearing periodically visits clearing member firms to evaluate various financial metrics such as liquidity, capital adequacy, asset quality, and earnings/profitability, and to review policies for new and existing account monitoring, risk management procedures for customer and proprietary exposures, and monitoring for liquidity risk and operational risk management. Results of each review are summarized for CME Clearing management. If a review indicates a potential weakness or area of concern, the risk management team will submit recommendations to CME Clearing management and the CHRC for approval. Recommendations may include, among other things, issuing a formal request to the clearing member to address the matter within a specified period to alleviate the need for more severe action to be taken.

FINANCIAL SAFEGUARDS SYSTEM, continued

Cross-Margining

CME Clearing has administered a range of cross-margining programs for more than twenty years. In recognition of the linkages among the markets for exchange-traded equity derivative products, as well as the need to promote efficient clearing procedures and to focus on the true inter-market risk exposure of clearing members, CME Clearing, in conjunction with the Options Clearing Corporation (OCC), offers a cross-margining program with respect to market professionals and proprietary accounts. Combining the positions of joint or affiliated clearing members in certain broad-based equity index futures and options into a single portfolio, and utilizing the sophisticated risk-based margining systems of each clearing organization, results in a single performance bond requirement across both markets. The clearing organizations jointly hold a first lien on and security interest in the positions in cross-margined accounts. All performance bond deposits associated with these accounts are jointly held. The cross-margining program significantly enhances both the efficiency and financial integrity of the clearing system by

allowing gains accruing to futures or options positions to be immediately available to meet the requirements for funds from losing positions.

If a clearing organization were to suspend a cross-margining member, the positions in the cross-margin accounts would be liquidated and all performance bond collateral would be converted to cash and applied toward each clearing organization's costs of liquidating the cross-margin accounts. CME Clearing and the OCC each would be entitled to half of any surplus to apply toward other obligations of the clearing member; if one clearing organization did not need its entire share of the surplus, the excess would be made available to the other clearing organization.

CME Clearing also maintains a cross-margin agreement with the Fixed Income Clearing Corporation (FICC). The program provides cross-margining of selected interest rate products and fixed income products. The design of the FICC program differs from the above-mentioned OCC program in that performance bond collateral is held separately

at each respective clearing organization. If CME Clearing or FICC were to suspend a cross-margining participant, the cross-margined positions would be liquidated and performance bond collateral would be converted to cash at each respective clearing organization. If the liquidation of cross-margined positions and performance bond resulted in a cross-margin loss, there would be a cross-margin guarantee payment from one clearing organization to the other to share the loss.

Additionally, CME Clearing and Singapore Exchange Limited (SGX) have a mutual offset agreement. CME Clearing can maintain collateral in the form of U.S. Treasury securities or irrevocable letters of credit. Regardless of the collateral, CME Clearing guarantees all cleared transactions submitted through SGX. In the event of a default, CME Clearing would initiate procedures designed to satisfy these financial obligations, such as the use of performance bond and guaranty fund contributions of the defaulting clearing member.

DEFAULT BY A CLEARING MEMBER

CME Clearing's financial safeguards system includes default procedures for both exchange-traded and cleared OTC markets. The risk management and financial surveillance techniques of CME Clearing are designed to minimize the possibility that a clearing member will default on its obligations to CME Clearing. CME Clearing, by rule and by operational practice, has prepared contingencies to expeditiously deal with the unlikely event of a clearing member default. A clearing member may be declared to be in default when it fails to promptly discharge any obligation to CME Clearing,⁹ including but not limited to failure to satisfy its financial obligations to CME Clearing. In the event of a default by a clearing member, depending upon the products cleared by the particular clearing member firm, CME Clearing may utilize one of three different guaranty funds and financial safeguards waterfalls: one for IRS, one for CDS, and one for futures and OTC cleared products other than IRS and CDS (the Base guaranty fund).

CME Clearing performs various default management exercises throughout the year. For CDS and IRS, default management drills are conducted twice yearly, with oversight provided by default management committees.

The procedures detailed below outline CME Clearing's general procedures in the event of a clearing member default. More detailed procedures may be applied to respond to the unique attributes of defaults involving specific asset classes, such as IRS and CDS.¹⁰

House Account Default

If a clearing member were unable to meet its financial obligations to CME Clearing resulting in a failure to make a payment within its house (sometimes referred to as proprietary or non-customer) account, CME Clearing may act immediately to:

- Transfer segregated and sequestered customer positions and collateral to another clearing member;
- Take control of, or liquidate, positions in the clearing member's house account;
- Apply the clearing member's guaranty fund and house performance bond deposits to satisfy the clearing member's obligations to CME Clearing with regard to its house account;
- Utilize all other assets of the clearing member that are available to CME Clearing (e.g., Exchange memberships); and/or
- Invoke any applicable parent guarantee.

Customer segregated and sequestered assets (positions and/or collateral) on deposit with or in the control of CME Clearing may not be used or impaired by CME Clearing in the case of a clearing member default to CME Clearing resulting from house account activity.

Customer Segregated or Sequestered Account Default

If a clearing member were unable to meet its financial obligations resulting in a failure to make payment within its customer segregated or customer sequestered account, CME Clearing may act immediately to:

- Transfer non-involved customer segregated or customer sequestered positions and collateral to another clearing member.
- Take control of, or liquidate, involved customer segregated or customer sequestered positions and house positions.
- Apply the clearing member's guaranty fund and house performance bond deposits to the failed obligation to CME Clearing.
- Utilize all other assets of the clearing member that are available to CME Clearing (e.g. Exchange memberships).

⁹ CME Rule 802.A.1 (Default by Clearing Member).

¹⁰ See CME Rules 8H802 AND 8G802 (Protection of Clearing House).

DEFAULT BY A CLEARING MEMBER, continued

Although CME Clearing separates customer segregated and customer sequestered performance bond deposits and positions from the clearing member's proprietary performance bond deposits and positions, the customer performance bond deposits and positions for each clearing member are held in aggregate, without identifying specific ownership at the customer level. If a default to CME Clearing occurred in the clearing member's customer segregated or customer sequestered accounts, CME Clearing has the right to apply toward the default all performance bond deposits and positions within the respective account at CME Clearing. Accordingly, positions and performance bonds deposited by customers not causing the default are potentially at risk if there is a default to CME Clearing in the respective customer account of their clearing member and may be liquidated.

Unsatisfied Obligation

Should there be any remaining unsatisfied obligations to CME Clearing following the above procedures, CME Clearing would apply CME designated funds, guaranty fund contributions of non-defaulting clearing members, and funds collected through an assessment against such clearing members. For the financial safeguard package that includes the Base guaranty fund, CME-

designated contributed capital is \$100 million. For each of the IRS and CDS financial safeguard packages, CME-designated contributed capital is \$100 million.

Following the application of CME-designated funds, CME Clearing would apply the guaranty funds of the non-defaulting clearing members, limited to the contributions to the financial safeguards package associated with the default.

If necessary to cure the default to CME Clearing, CME Clearing would then invoke its right to assess non-defaulting clearing members. For the financial safeguards package that includes the Base guaranty fund, assessment powers cannot exceed 2.75 times the aggregate Base guaranty fund requirement across all clearing members for a single default. For multiple defaults in a five-day period, assessment powers are capped at 5.5 times the aggregate guaranty fund. For both the IRS and CDS financial safeguard packages, assessment powers are sized to match the third and fourth largest theoretical net debtors.¹¹ Should the applicable financial safeguard package be exhausted, beyond maximum assessment powers, the terms of Rule 818 Close-Out Netting would apply.

¹¹ Rule 8H802 and 8G802 (Protection of Clearing House).

Liquidity Facility

CME Clearing maintains a fully secured, committed line of credit with a consortium of domestic and international banks that may be used in certain situations. Under the terms of the credit agreement, CME Clearing may use the proceeds of the advances to provide temporary liquidity in the unlikely event of a clearing member default, in the event of a liquidity constraint or default by a depository institution (custodian of the collateral), or if there is a temporary problem with the domestic payments system that would delay payments of settlement variation between CME Clearing and clearing members. The line of credit thus provides CME Clearing with additional capacity to pay settlement variation to all clearing members even if a clearing member may have failed to meet its financial obligations to CME Clearing. As of December 30, 2011, the size of the facility was \$3 billion, expandable to \$5 billion.

U.S. Insolvency Law Protections

In the case of a bankruptcy of an FCM clearing member, the U.S. Bankruptcy Code, the CFTC Part 190 Bankruptcy Rules and other laws contain a number of provisions that provide protections to a clearing member's public customers. These provisions include

DEFAULT BY A CLEARING MEMBER, continued

special priority rules for distribution of property to customers and certain exceptions to the Bankruptcy Code's automatic stay and voidability provisions. Set forth below is a general overview of these provisions.

In the event of a clearing member bankruptcy, the Bankruptcy Code provides a number of protections to CME Clearing, regardless of whether the bankrupt clearing member holds public customer accounts or only clears proprietary trades. For example, a trustee may not void pre-bankruptcy payments of original performance bond or settlement variation made to CME Clearing (except in the event of a fraudulent transfer). In addition, the filing of a bankruptcy petition will not stay a set-off by CME Clearing of claims for original performance bond or settlement variation payments owed by a clearing member against cash, securities or other property of a clearing member held by CME Clearing. These provisions establish a priority for CME Clearing with respect to performance bond deposits, which protect all clearing members. Further, the Bankruptcy Code provides that neither a clearing member's bankruptcy nor any order of a bankruptcy court can prevent CME Clearing from exercising any contractual right it has to liquidate a commodity contract.

The Bankruptcy Code and the CFTC Part 190 Bankruptcy Rules provide a five-day grace period during which time customer accounts may be transferred from a defaulting clearing member to non-defaulting clearing members, either pursuant to arrangements made by the customer or as part of a "bulk transfer" of accounts coordinated with CME Clearing and the CFTC. With respect to distribution of customer property remaining at the defaulting clearing member, the CFTC Part 190 Bankruptcy Rules classify a clearing member's customers as either "public" or "non-public." Non-public customers include certain account holders that are affiliated with or related to the clearing member such as the clearing member officers, directors, general partners or ten percent or greater owners. All other customers are considered "public," and their property on deposit with the clearing member is subject to CFTC segregation requirements.

The Bankruptcy Code and CFTC Part 190 Rules afford claims of public customers the highest priority, subject only to the payment of claims relating to the administration of customer property. For purposes of claims in an FCM bankruptcy, customers of the FCM

are divided into the following account classes: U.S. futures accounts (governed by Section 4d of the Commodity Exchange Act and related CFTC Regulations), foreign futures accounts (governed by CFTC Regulation 30.7), cleared swaps accounts, leverage accounts and delivery accounts. Each account class is a separate pool of funds for claims. The claims of customers whose funds are held in defined account classes will have priority over proprietary claims and the claims of general creditors in an FCM bankruptcy to funds in that pool. All property segregated on behalf of, or otherwise traceable to, a particular account class is allocated to that class and distributed to customers in that class on a pro-rata basis.

For banks and foreign entities that are direct clearing members, the applicability of these and other insolvency-related provisions will depend on the circumstances of each situation.

An insolvency of a domestic bank would be controlled by the Federal Deposit Insurance Corporation (FDIC) or a receiver appointed by the Comptroller of the Currency (Comptroller) depending on the type of banking services provided by the clearing

DEFAULT BY A CLEARING MEMBER, continued

member bank. If the clearing member is a retail depository bank, and therefore insured by the FDIC, its insolvency would be administered under the Federal Deposit Insurance Act (FDIA) with the FDIC as receiver. A non-depository bank would not be subject to the FDIA, and its insolvency would be controlled by the Comptroller as the licensing agency. Such insolvency is governed by the National Banking Act.

CME Clearing's outside counsel has indicated that based on the FDIA and the Federal Deposit Insurance Corporation Act of 1991 (FDICIA) there is strong legal support for contractual netting among a clearing organization such as CME Clearing and its members, including U.S. banks. FDICIA generally provides that the covered contractual payment obligations and the covered contract

payment entitlements of a member of a clearing organization to and from all other members of a clearing organization shall be netted. In addition, the FDIA has provisions that are similar to the Bankruptcy Code in permitting broad cross-product netting and allowing prompt liquidation of contracts with an insolvent bank.

Foreign banks will fall within one of three relevant categories. If the foreign bank has assets but no subsidiaries or branches in the U.S., it would be subject to the U.S. Bankruptcy Code. Second, a foreign bank could establish a subsidiary bank in the U.S., either as a retail depository bank subject to FDIC regulations or as a non-depository bank that must be licensed by the Comptroller. The subsidiary's insolvency would be processed in the same manner as a U.S. bank. Finally,

the foreign bank could set up branches rather than a bank subsidiary in the U.S. Such branches would not be permitted to accept retail deposits, and therefore the Comptroller, which would license the branches, would be the federal regulator rather than the FDIC. A receiver appointed by the Comptroller would administer the insolvency process in the U.S.

CME CLEARING FINANCIAL SAFEGUARDS SYSTEM RESOURCES

Under no circumstances will customer segregated or sequestered performance bond deposits held by CME Clearing for one FCM clearing member be used to cover either a house or customer default of another clearing member. Customers doing business through a clearing member not involved in a default are insulated from losses incurred by the failure of another clearing member.

At December 30, 2011, CME Clearing maintained aggregate performance bonds of approximately \$90 billion.¹² The following highlights additional available resources of CME Clearing at December 30, 2011 in the event that the resources of the defaulting firm are exhausted.

Base Financial Safeguards Package

| | |
|---|------------------|
| CME Contributed Capital | \$100,000,000 |
| Guaranty Fund Contributions | \$2,968,000,000 |
| Assessment Powers | \$8,161,000,000 |
| Aggregate base financial safeguards ¹³ | \$11,229,000,000 |

IRS Financial Safeguards Package¹⁴

| | |
|--|-----------------|
| CME Designated Working Capital | \$100,000,000 |
| Guaranty Fund Contributions | \$948,000,000 |
| Minimum Total Assets Available for Default | \$1,048,000,000 |

CDS Financial Safeguards Package¹⁵

| | |
|--|---------------|
| CME Designated Working Capital | \$100,000,000 |
| Guaranty Fund Contributions | \$629,000,000 |
| Minimum Total Assets Available for Default | \$729,000,000 |

¹² Aggregate performance bonds stated represent the value after any applicable CME Clearing performance bond haircuts.

¹³ Exchange memberships assigned to CME Clearing are available in the event of the respective clearing member default.

¹⁴ IRS Financial Safeguards additionally include assessment powers as detailed in Rule 8G802 (Protection of Clearing House).

¹⁵ CDS Financial Safeguards additionally include assessment powers as detailed in Rule 8H802 (Protection of Clearing House).

DISASTER RECOVERY AND BUSINESS CONTINUITY

The Business Continuity Management (BCM) program is committed to ensuring CME Group can respond to an incident while ensuring the safety of our people, guarantee the survivability of core trading and clearing functions and meeting our fiduciary responsibility to our stakeholders.

Key components of the program include:

- Identifying a program framework that aligns with U.S. and International standards.
- Multiple-redundant systems components, maintained at separate, geographically-dispersed facilities.
- Multiple-redundant network connectivity between clearing firms and CME Clearing, into those separate, geographically-dispersed facilities.
- Real-time mirroring of data storage between separate facilities.
- Physical dispersion of operations oriented staff.
- Multiple electricity feeds as well as back-up generator capability.
- Redundant voice telecommunications lines with automatic switching to backup facilities.
- Routinely-tested scenarios include both the completion of the daily clearing cycle and the resumption of normal clearing processing.

CME CLEARING EUROPE

CME Clearing Europe, CME Group's European Clearing House, is approved as a Recognised Clearing House by the UK Financial Services Authority. CME Clearing Europe was launched in May 2011 initially offering clearing for a wide range of OTC products. CME Clearing Europe is a separate legal entity which is wholly owned by CME Group; although CME Clearing Europe benefits from CME Clearing's system infrastructure and proven risk management expertise, it has its own experienced staff based in London and its own governance structure including a Board of Directors and Risk Committee. It also has its own membership criteria for firms wishing to clear business through the European entity and maintains its own financial safeguards to protect against the default of a Clearing Member.

The following highlights the available resources of CME Clearing Europe at December 30, 2011 in the event that the resources of the defaulting firm are exhausted.

Financial Safeguards Package:

| | |
|---|---------------|
| CME Clearing Europe Guarantee Fund Contribution | \$20,000,000 |
| Clearing Member Guaranty Fund Contributions | \$40,000,000 |
| Assessment Powers | \$110,000,000 |

For more information on CME Clearing Europe visit cmeclearingeurope.com.

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All matters pertaining to rules and specifications herein are made subject to and are superseded by official CME Group rules.

Current CME Group rules should be consulted in all cases concerning contract specifications.

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CME CLEARING

CME SPAN[®]

The Standard Portfolio Analysis of Risk[™]

Introduction

CME Clearing is the world's largest derivatives clearing organization, clearing approximately 90% of all futures and options on futures traded in the United States. An operating division of CME, CME Clearing is the central counterparty and guarantor for two of the largest and most diverse financial exchanges in the world, handling over 1.5 billion futures, options on futures and OTC transactions worth more than \$788 trillion in notional value in a single year.

Our clearing function ensures the safety and soundness of the markets we clear and helps differentiate us from our competitors. We serve the risk management needs of customers around the globe by offering clearing services for the widest range of benchmark financial products. In addition to clearing for CME, Chicago Board of Trade (CBOT), and One Chicago, CME Clearing also provides clearing services for OTC transactions through CME Auction Markets™, and CME Clearing360™.

With CME Clearing being substituted as the counterparty to every trade matched or submitted in the clearing process – the risk of default is greatly reduced. The financial integrity of CME Clearing is a foremost consideration of CME's Board of Directors, Clearing House Risk Committee, and management. CME is vitally aware of its role in international financial markets and believes that its financial safeguard system, designed for the benefit and protection of both clearing members and their customers, is second to none.

What is SPAN®?

The **Standard Portfolio Analysis of Risk™ (SPAN)** system is a highly sophisticated methodology that calculates performance bond requirements by analyzing the “what-ifs” of virtually any market scenario. Developed and implemented in 1988 by Chicago Mercantile Exchange (CME), SPAN was the first system ever to calculate performance bond requirements exclusively on the basis of overall portfolio risk at both clearing and customer levels.

In the years since its inception, SPAN has become the industry standard for portfolio risk assessment. It is the official performance bond (margin) mechanism of 47 registered exchanges, clearing organizations, service bureaus and regulatory agencies throughout the world. SPAN software is utilized by a wide range of end-users, including futures commission merchants (FCMs), investment banks, hedge funds, research organizations, risk managers, brokerage firms and individual investors worldwide. Although originally designed for use with derivatives, its extraordinary capabilities have led to its extensive use in assessing risk for many different types of financial instruments.

Now in its fourth generation of functionality, SPAN has evolved into a “family” of three software products designed to meet the needs of a wide range of customers.

PC-SPAN® – a single-user desktop application that offers margin calculation across multiple exchanges.

SPAN Risk Manager™ – a single-user desktop program that includes risk analytics in addition to margin calculation.

SPAN Risk Manager Clearing – an institutional-level program used by exchanges, clearing organizations, service bureaus and regulatory agencies that employs all the functionalities of PC-SPAN and SPAN Risk Manager, and also offers real-time margining, risk array calculations and production of SPAN risk parameter files.

Why is SPAN the global standard?

SPAN is the global standard in risk assessment software because it:

- » Is flexible and powerful
- » Offers cost-efficient and easy-to-implement solutions
- » Calculates performance bond requirements at multiple levels: clearing members, members/brokers, omnibus and individual accounts
- » Offers true market transparency, including access to free daily SPAN files and detailed documentation
- » Provides unparalleled customer support

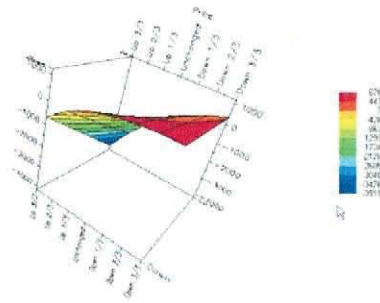
How does SPAN work?

SPAN evaluates overall portfolio risk by calculating the worst probable loss that a portfolio might reasonably incur over a specified time period. SPAN achieves this number by comparing hypothetical gains and losses that a portfolio would sustain under different market conditions.

SPAN typically provides a "Risk Array" analysis of 16 possible scenarios for a specific portfolio under various conditions. SPAN methodology, however, allows users to request any number of scenarios to meet their particular needs:

- » Each scenario consists of a "what-if" situation in which SPAN assesses the effects of variations in price, volatility and time to expiration.
- » Each calculation represents a gain or loss based on the possible gains or losses due to changes in an instrument's price by X and volatility by Y.

Risk Array Graph



SPAN-licensed clearing organizations and exchanges determine for themselves the following SPAN parameters, in order to reflect the risk coverage desired in any particular market:

- » Price Scan Range: A set range of potential price changes
- » Volatility Scan Range: A set range of potential implied volatility changes
- » Intracommodity Spread Charge: An amount that accounts for risk (basis risk) of calendar spreads or different expirations of the same product, which are not perfectly correlated
- » Short Option Minimum: Minimum margin requirement for short option positions
- » Spot Charge: A charge that covers the increased risk of positions in deliverable instruments near expiration
- » Intercommodity Spread Credit: Margin credit for offsetting positions between correlated products

SPAN combines financial instruments within the same underlying for analysis, and refers to this grouping as the Combined Commodity group. For example, futures, options on futures and options on equities on the same stock could all be grouped under a single Combined Commodity.

To calculate a performance bond requirement, for each Combined Commodity in a portfolio, SPAN will:

- » Sum the Scan Risk charges, any Intracommodity Spread and Spot Charges
- » Apply the offsets for all Intercommodity Spread Credits within the portfolio
- » Compare the above sum with any existing Short Option Minimum requirement
- » Assess the greater of the two compared as the risk of the Combined Commodity

The Total Margin Requirement for a portfolio is the sum of the risk of all Combined Commodities less all credit for risk offsets between the different Combined Commodities.

Here's an example of a portfolio with CME Euro FX Futures and Options positions:

- » Euro FX Futures: 1 Long June04
- » Euro FX Options on Futures: 1 Short June/June04 Call 1.150 Strike
- » Euro FX June Futures Settlement = 1.1960
- » Euro FX Futures Price Scan Range = \$2400 = 192 points
- » Euro FX Volatility Scan Range = 1%

| Contract | Net |
|---|-----|
| CME EC Future 200406 | 1 |
| CME EC 200406 Call at 1.150 on CME EC Future 200406 | -1 |

| # | One Long June 04 EuroFX | One Short June on June 04 1.150 Call Euro FX Option | Portfolio | Scenario Description |
|----|-------------------------------|--|-----------|---|
| 1 | \$0 | -\$130 | -\$130 | Price unchanged; Volatility up the Scan Range |
| 2 | \$0 | \$155 | \$155 | Price unchanged; Volatility down the Scan Range |
| 3 | \$800 | -\$785 | \$15 | Price up 1/3 the Price Scan Range; Volatility up the Scan Range |
| 4 | \$800 | -\$531 | \$269 | Price up 1/3 the Price Scan Range; Volatility down the Scan Range |
| 5 | -\$800 | \$500 | -\$300 | Price down 1/3 the Price Scan Range; Volatility up the Scan Range |
| 6 | -\$800 | \$815 | \$15 | Price down 1/3 the Price Scan Range; Volatility down the Scan Range |
| 7 | \$1600 | -\$1463 | \$137 | Price up 2/3 the Price Scan Range; Volatility up the Scan Range |
| 8 | \$1600 | -\$1240 | \$360 | Price up 2/3 the Price Scan Range; Volatility down the Scan Range |
| 9 | -\$1600 | \$1102 | -\$498 | Price down 2/3 the Price Scan Range; Volatility up the Scan Range |
| 10 | -\$1600 | \$1446 | -\$154 | Price down 2/3 the Price Scan Range; Volatility down the Scan Range |
| 11 | \$2400 | -\$2160 | \$240 | Price up 3/3 the Price Scan Range; Volatility up the Scan Range |
| 12 | \$2400 | -\$1967 | \$433 | Price up 3/3 the Price Scan Range; Volatility down the Scan Range |
| 13 | -\$2400 | \$1674 | -\$726 | Price down 3/3 the the Price Scan Range; Volatility up the Scan Range |
| 14 | -\$2400 | \$2043 | -\$357 | Price down 3/3 the Price Scan Range; Volatility down the Scan Range |
| 15 | \$2304 | -\$2112 | \$192 | Price up extreme (3 times the Price Scan Range) – Cover 32% of loss |
| 16 | -\$2304 | \$1466 | -\$838 | Price down extreme (3 times the Price Scan Range) – Cover 32% of loss |

In the sample portfolio above, in scenario 8, the gain on one long June 04 EC futures position offsets the loss of one short EC June/June 04 1.150 call option position, incurring a gain of \$360.

In scenario 16, the portfolio would incur a loss of \$838 over the next trading day, which is 32% of the resulting loss if the price of the underlying future decreases by three times the price scan range.

After SPAN has scanned the different scenarios of underlying market price and volatility changes, it selects the largest loss among these observations. This "largest reasonable loss" is the Scan Risk charge. In this example, the largest loss across all 16 scenarios is a result of Scenario 16, a loss of \$838.

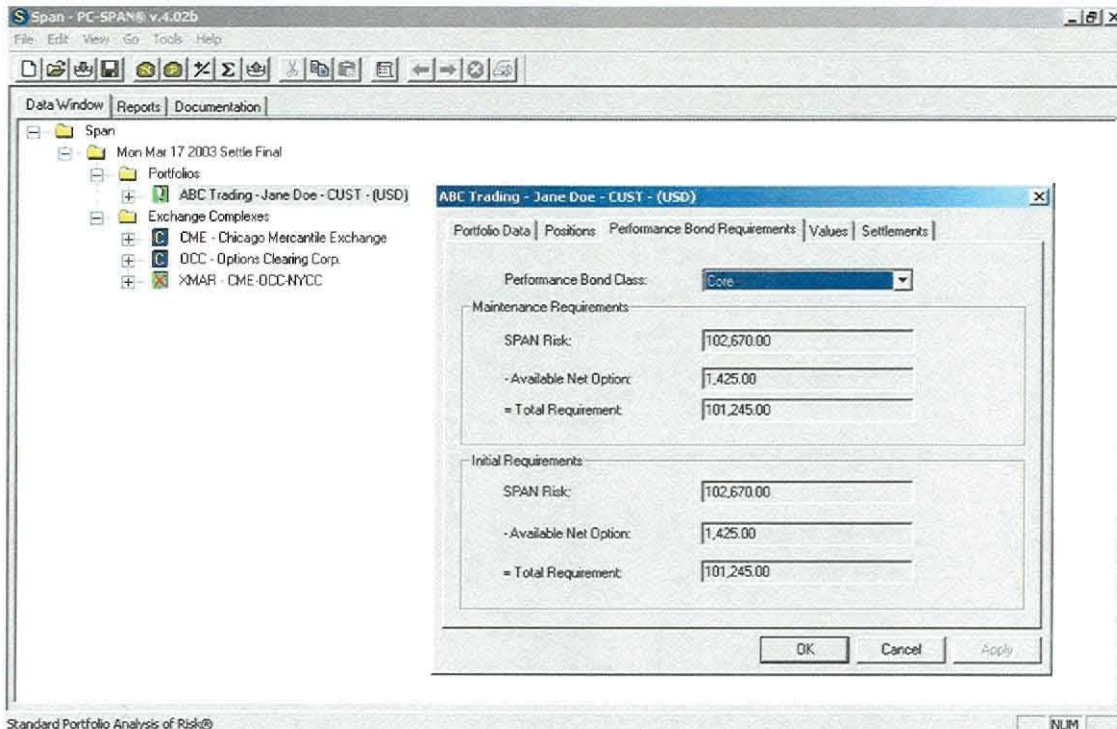
About the SPAN software family:

A number of common features are integrated into the SPAN software family. All SPAN software products:

- » Are Windows-based and have the familiar look and feel of today's most widely used desktop software products
- » Feature free access to daily SPAN arrays from a variety of exchanges and clearing organizations around the world
- » Feature extensive, detailed and well-documented reports on Portfolio and Risk parameters
- » Include an XML-based reporting module which provides for simple data import and export to Access or Excel
- » Are supported by the CME Clearing House's Risk Management experts via a dedicated SPAN hotline and email address
- » Run in batch or GUI interactive mode and can be automated with simple scripting language
- » Support multiple currencies and the widest possible variety of instruments including stocks, bonds, OTC derivatives, cash, futures, and options

PC-SPAN = Margin Calculation

PC-SPAN is single-user desktop software that enables a user to enter positions manually or by using scripting language to automate the position entry process. With a click of the mouse, the SPAN requirement is known. As thousands of users can attest, PC-SPAN allows for an extremely quick, inexpensive and simple way to calculate margin requirements across multiple exchanges.



SPAN Risk Manager = Margin Calculation + Risk Analytics

The new Span Risk Manager is a single-user, desktop software that integrates risk management features with the latest processing technology to deliver an extremely flexible, intuitive system for full portfolio risk management. Span Risk Manager's powerful features and intuitive design allow for true portfolio analytics through multi-variant stress testing and option exposures.

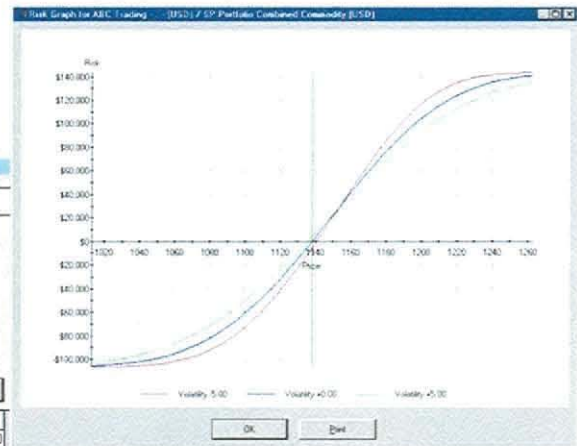
Specifically, SPAN Risk Manager:

- » Enables users to gauge the effects, on a total portfolio or an individual option, of
 - » Changes in price
 - » Implied volatility
 - » Time to expiration
 - » Dividend yields
 - » Interest rates
- » Calculates hypothetical P&Ls, option prices, and Greeks
- » Calculates implied, average call/put and series volatilities
- » Allows for stress testing of multiple products
- » Allows user to define, compare, save and reload "What If" Scenarios for stress testing
- » Enables the user to shift volatility skews
- » Provides simultaneous analyses on several different trading instruments
- » Supports the following option pricing models:
 - » Black-Scholes
 - » Merton
 - » Adesi-Whaley
 - » Cox-Ross-Rubenstein

Analyze: 123 - *** New Portfolio *** - (USD)

Combined Commodity: CME - SP Product: [None]
 Option Pricing Model: Default Display price for: CME SP Future 200306
 Main Variable: Price Secondary Variable: Volatility
 Step Size: 10 Step Size: 5
 Step Size specified as: % of value absolute value Step Size specified as: % of value absolute value
 Number of Steps: 3 Number of Steps: 1
 Maint./Init.Margin: 952,200.00 / 1,190,250.00 Multicommodity Analysis Position Details Risk Graph

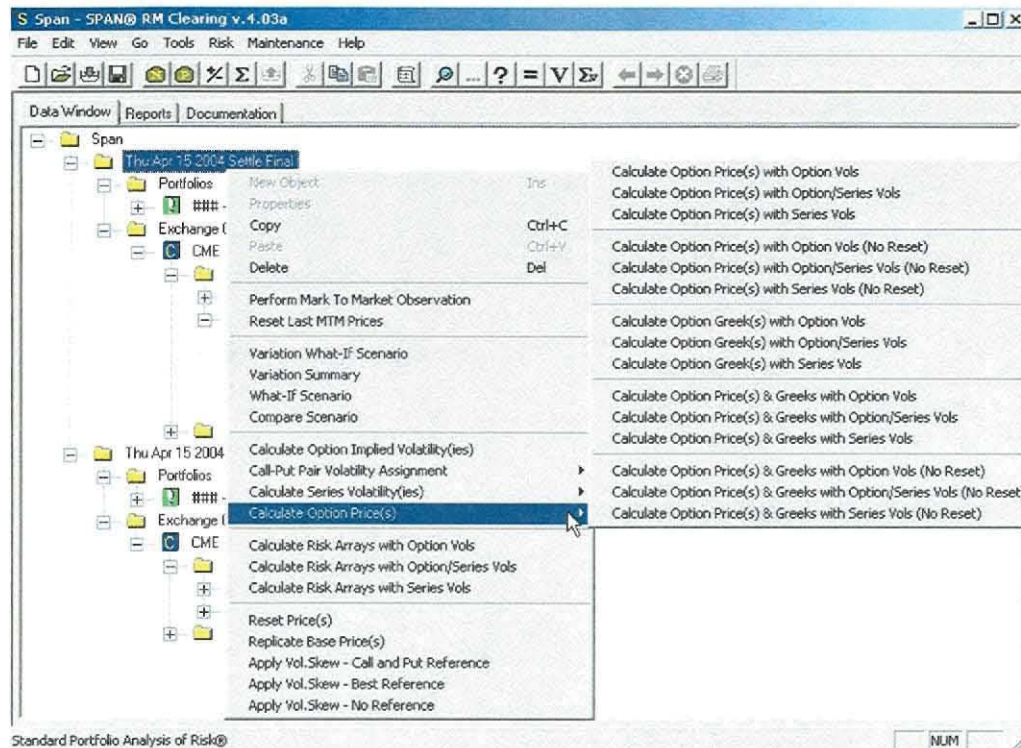
| | 826.70 | 836.70 | 846.70 | 856.70 | 866.70 | 876.70 | 886.70 |
|------------------|------------|------------|------------|-------------|-------------|-------------|-------------|
| Underlying | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 |
| Opt.Delta | -43.7216 | -47.5099 | -51.2757 | -54.9862 | -58.6114 | -62.1243 | -65.5018 |
| Net Delta | -33.7216 | -37.5099 | -41.2757 | -44.9862 | -48.6114 | -52.1243 | -55.5018 |
| Gamma | -0.3788 | -0.3783 | -0.3743 | -0.3673 | -0.3573 | -0.3449 | -0.3303 |
| Vega | -152.4844 | -155.9636 | -158.0549 | -158.7521 | -158.0853 | -156.1176 | -152.9410 |
| Theta | 25.6110 | 26.1954 | 26.5496 | 26.6637 | 26.5517 | 26.2212 | 25.6877 |
| Rho | -72.3322 | -79.2377 | -86.1845 | -93.1107 | -99.9570 | -106.6883 | -113.1946 |
| Risk | 295,250.00 | 206,250.00 | 107,750.00 | 0.00 | -117,000.00 | -243,000.00 | -377,500.00 |
| Volatility -5.00 | 485,000.00 | 401,000.00 | 305,250.00 | 198,250.00 | 80,000.00 | -49,250.00 | -188,750.00 |
| Volatility +0.00 | 295,250.00 | 206,250.00 | 107,750.00 | 0.00 | -117,000.00 | -243,000.00 | -377,500.00 |
| Volatility +5.00 | 104,000.00 | 11,250.00 | 89,750.00 | -198,500.00 | -315,000.00 | -439,000.00 | -570,500.00 |



SPAN Risk Manager Clearing = Margin Calculation + Risk Analytics + Real Time Capabilities + Risk Array Calculations + Production of SPAN Risk Parameter Files

At the top of the SPAN software hierarchy is SPAN Risk Manager Clearing. This program employs all of the functionalities of PC-SPAN and SPAN Risk Manager plus several additional features which are applicable to entities such as exchanges, clearing organizations, and service bureaus. These powerful features include:

- » "What-If" Margining – Allows an organization to view and compare hypothetical margins under multi-variant "What If" scenarios
- » Real-Time Component Interface – Allows for real-time SPAN margining and pre or post execution credit controls
- » Automated Production and Publication of SPAN Risk Array files – Takes the work out of creating a publishing a daily SPAN Risk Array file to the world
- » Complex Implied Volatility Averaging



"What-if" margining

Scenario Definition

Exchange Complex: CME Update Type: Volatility Add

Combined Commodity: ED Update Method: Change By Load

Product: None Value: .1 Save

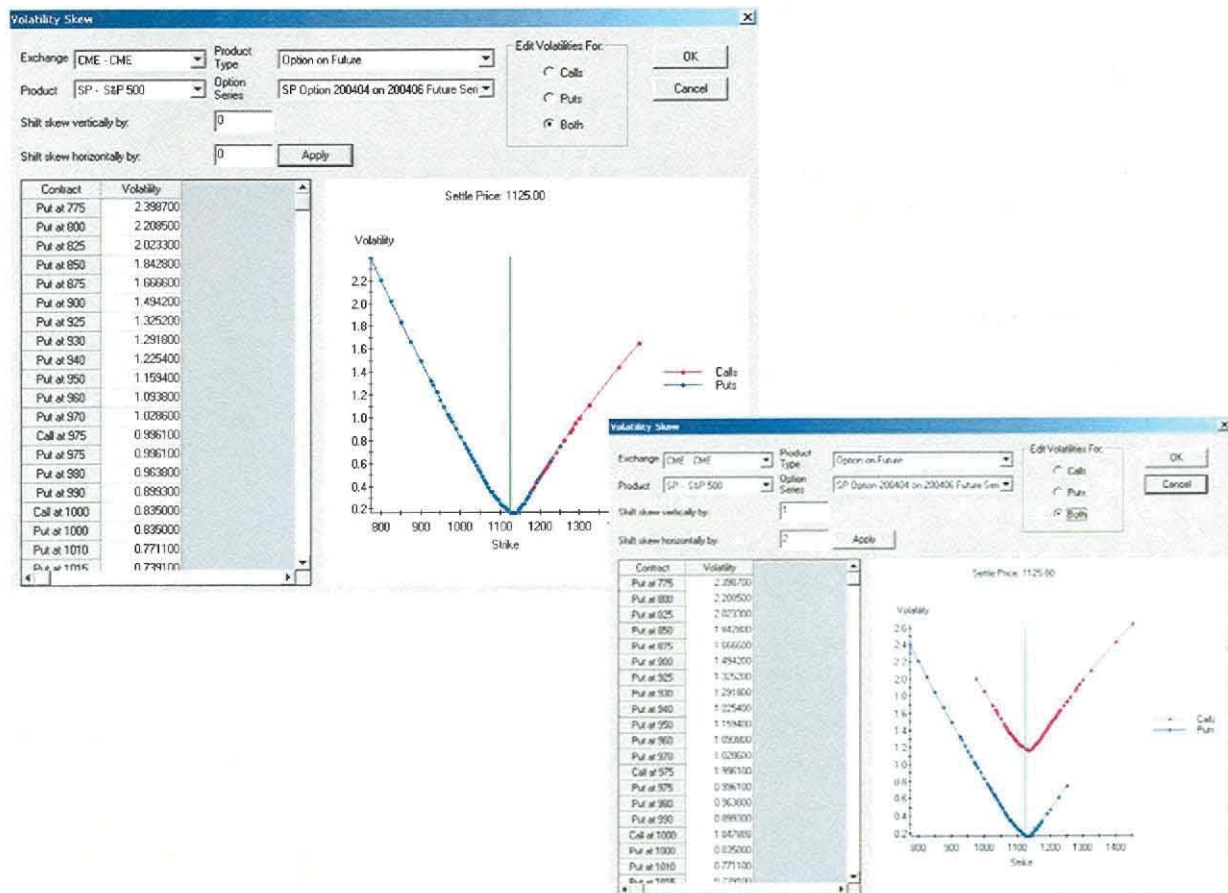
Start Period: 200406

End Period: 200409

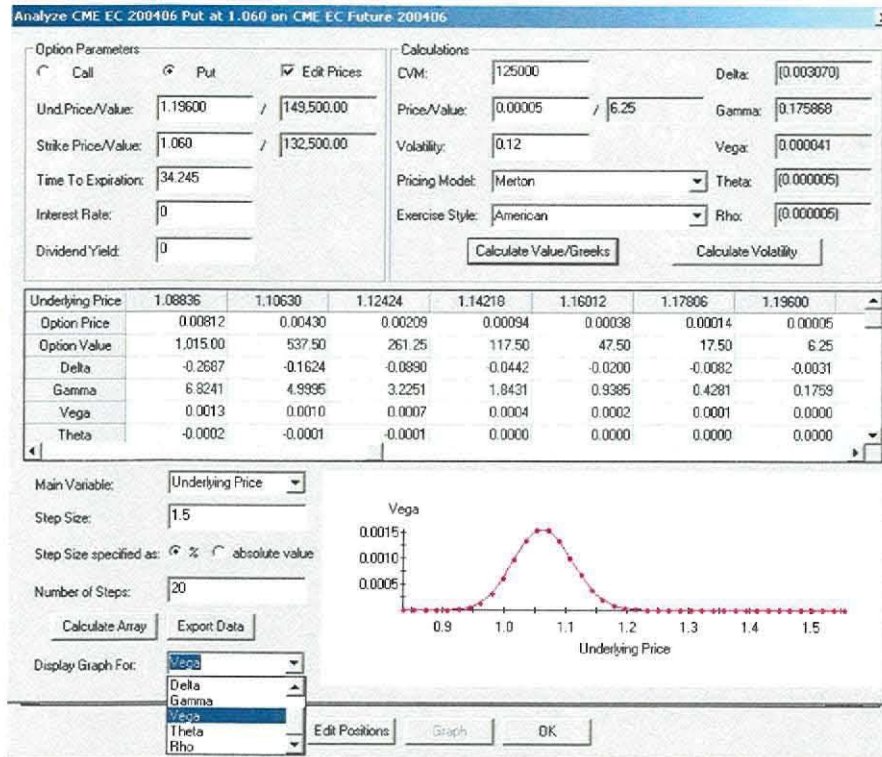
Caution: Updates are applied in the order specified

| Update Target | Start Period | End Period | Update Type | Update Method | Value | Delete |
|-----------------------------------|--------------|------------|-----------------------|-------------------|--------|--------|
| ED | | | Price Scan Range | Set To | 800.00 | Delete |
| ED | 200406 | 200409 | Volatility Scan Range | Set To | 0.02 | Delete |
| ED - EURODOLLARS Future | 200406 | 200409 | Price | Change By Percent | 5.00 | Delete |
| ED - EURODOLLARS Option on Future | 200406 | 200409 | Volatility | Change By | 0.10 | Delete |

Volatility Skew and Shifting Function



Option Analyzer



Minimum system requirements for SPAN software products:

- » Windows 95, Windows 98, Windows NT version 4, Windows 2000, Windows ME, Windows XP
- » Version 5 of Microsoft's Internet Explorer web browser ("IE5") or higher
- » 20MB (twenty megabytes) of disk space. As a practical matter, at least 50 megabytes of free space on a hard drive is required to install and use PC-SPAN version 4 and IE 5
- » 64 megabytes of RAM (SPAN will run faster, however, with more RAM)

Purchasing, licensing and further information on SPAN software products

For more information on SPAN methodology and software, or to purchase PC-SPAN or SPAN Risk Manager, please go to: www.cme.com. Go to Clearing Services, and follow the links to SPAN.

For information on licensing the SPAN methodology or SPAN Risk Manager Clearing software, please contact the CME SPAN Hotline of the CME Clearing House Risk Department at (312) 648-3888 or e-mail span@cme.com.

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**Summary of Requirements for
CME, CBOT, NYMEX and COMEX Clearing Membership
And OTC Derivatives Clearing Membership
September 2013**

CME Clearing ("Clearing House") is the clearing house division of Chicago Mercantile Exchange Inc. ("CME") which is wholly owned by CME Group Inc. ("CME Group"). CME Group is the ultimate parent of: (1) CME; (2) Board of Trade of the City of Chicago ("CBOT"); (3) New York Mercantile Exchange, Inc. ("NYMEX"); and (4) Commodity Exchange, Inc. ("COMEX") (hereafter referred to as "Exchange(s)").

A firm may become a clearing member of one or more Exchanges and have privileges to clear exchange-traded futures and/or options on futures ("futures/options") on that Exchange. Depending upon the clearing membership privileges held, these clearing members may be eligible to clear OTC derivatives products (i.e. cleared swaps and forwards) if additional requirements, including additional capital and risk management requirements, are met. For example, CME clearing members are eligible to clear FX OTC products, Credit Default Swaps ("CDS") and Interest Rate Swaps ("IRS"), CBOT clearing members are eligible to clear ethanol and grain swaps, NYMEX clearing members are eligible to clear energy OTC products and COMEX clearing members are eligible to clear metal forwards. A CBOT-only, NYMEX-only or COMEX-only clearing member is not eligible to clear CDS or IRS.

A firm may also become an Over-The-Counter ("OTC") Derivatives Clearing Member if it desires to only clear OTC derivative products and not clear any Exchange-traded futures/options activity. For firms choosing this alternative, please see the Over-The-Counter Derivatives Clearing Membership Handbook. It can be found on CME Group's Website at: <http://www.cmegroup.com/company/membership/files/CME-OTC-Clearing-Membership-Handbook.pdf>

Clearing members that will clear exchange-traded futures/options and/or OTC derivatives for customers must be registered with the United States Commodity Futures Trading Commission ("CFTC") as a Futures Commission Merchant ("FCM"). FCMs are subject to CFTC rules and regulated pertaining to regulatory capital, monthly financial reporting, required notifications and customer protection. More detailed information concerning FCM registration can be found on the CFTC's web site at www.cftc.gov.

The general requirements of clearing membership are stated in Chapter 9 of each Exchange's rulebook. The additional requirements for clearing OTC derivative products are stated in Chapter 8F of CME's Rulebook, for IRS are stated in Chapter 8G of CME's Rulebook and for CDS are stated in Chapter 8H of CME's Rulebook. Also, the Clearing House may impose additional requirements upon the clearing member that may be specific to the products cleared by the clearing member. Below is a summary of the major requirements. For a more detailed account of clearing membership requirements, please review the Clearing Membership Handbook. It can be found on CME Group's web site at: <http://www.cmegroup.com/company/membership/files/clearmemberhandbook.pdf>

Clearing membership in the Exchanges or for OTC derivatives is a privilege granted by the appropriate Clearing House Risk Committee and may be withdrawn at any time.



General Requirements

1. A clearing member must be a corporation (including a C Corporation, Subchapter S Corporation or Limited Liability Company), partnership (including a Limited Partnership or General Partnership) or cooperative association.
2. A clearing member shall be qualified to do business in the State of Illinois or the State of New York or have an agency agreement in place with an entity already qualified in the State of Illinois or the State of New York. Such agency agreement must be in an Exchange approved format.
3. A clearing member must have an authorized representative (i.e., officer, principal or partner), satisfactory to the Clearing House Risk Committee, to represent the clearing member before the Exchanges and their committees.
4. A clearing member shall be engaged in or demonstrate immediate capacity to engage in the conduct of the business of a clearing member.
5. A clearing member shall ensure that any and all necessary approvals have been received from regulatory authorities, including, but not limited to, the United States Federal Reserve and other foreign banking regulators, to allow the firm to conduct the business of a Clearing Member, if applicable.
6. A clearing member shall demonstrate such fiscal and moral integrity as would justify the Clearing House's assumption of the risks inherent in clearing its trades.
7. A clearing member shall agree to abide by all Exchange rules upon which it has membership privileges and to cooperate in their enforcement.
8. A clearing member shall agree to guarantee and assume complete responsibility for: (a) all trades executed or directed to be executed by floor brokers and traders qualified by it; and (b) all orders that floor brokers qualified by it negligently execute or fail to execute. In addition, a clearing member shall agree to guarantee and assume responsibility for all trading activity routed through any electronic trading system, if applicable, to the Clearing House for clearing of such transactions and which are guaranteed to the Clearing House by the clearing member via any connection, terminal, link, telecommunications hub or handheld unit provided by a clearing member to a third party, as well as any applicable electronic trading systems and terminals that the clearing member provides to a third party, including an eligible customer, to enter orders.
9. A clearing member shall comply with all credit control policies developed by the Exchange for customer and proprietary transactions. Such credit control policies may include, but not be limited to, registration of credit control administrators with the Exchange, definition of credit control limits, and maintenance of written procedures verifying compliance with Exchange credit control requirements. Any "GC2" credit control functionality required by the Exchange shall be in addition to a clearing member's initial risk monitoring and credit control procedures.
10. A clearing member must be in "good standing" under each applicable regulatory regime which it is subject to and must maintain this status while it is a clearing member.



Refer to Exchange Rule 901. (General Requirements and Obligations)

Clearing Members in Non-U.S. Jurisdictions

Clearing members that are incorporated/domiciled in non-U.S. jurisdictions must be subject to a legal and insolvency regime acceptable to the Clearing House. Clearing members from non-U.S. jurisdictions must use the Clearing House's approved settlement banks for performance bond deposits and variation margin.

Choice of Law

The rules of the Exchange shall be governed by and construed in accordance with the laws of the State of Illinois in the United States. Any action, claim, dispute or litigation of any kind between the clearing member and the Exchanges shall be adjudicated in a federal or state court in Chicago, Illinois. Clearing members must consent to the jurisdiction of such court and to service of process by any means authorized by Illinois or U.S. federal law, and waive the right to transfer the venue of such litigation. Refer to Rule 905. In addition, the rule provides that clearing members irrevocably waive any grounds of sovereign immunity in any legal action with the Exchanges.

Additional General Requirements for OTC

1. The clearing member shall agree to guarantee and assume responsibility for all OTC derivatives trading activity executed via outside means and submitted for clearing to the Clearing House by any customer, broker or affiliate authorized by the clearing member.
2. A clearing member that will clear IRS and CDS must have appropriate risk management capabilities, operational infrastructure and experience to support their CDS or IRS clearing activity, as prescribed by the Clearing House.

Refer to CME Rule 8F04 (OTC Clearing Member Obligations and Qualifications), CME Rule 8G04 (IRS Clearing Member Obligations and Qualifications) and CME Rule 8H04 (CDS Clearing Member Obligations and Qualifications) for additional information.

Membership Requirements

To become a CME clearing member, the firm must purchase and/or acquire by assignment seven CME memberships (i.e. 2 CME division, 2 IMM division, 2 IOM division and 1 GEM division). One CME, IMM, IOM and the GEM must be owned by the clearing member or parent company or individual owner with an acceptable proprietary interest of at least \$500,000 in the clearing member (i.e. "firm owned"). The other CME, IMM and IOM memberships may be independently assigned.



To become a CBOT clearing member, the firm must purchase and/or acquire by assignment two Full/B-1 CBOT memberships, if the firm is registered with the CFTC as an FCM, or one Full/B-1 CBOT membership, if the firm is not registered as an FCM. If the firm is required to have two Full CBOT memberships, one Full membership must be owned by the clearing member or a person, including a parent company, with an acceptable proprietary interest of at least \$500,000 in the clearing member. The other may be independently assigned. If only one CBOT Full membership is required to be assigned for clearing membership, then that one membership must be owned by the clearing member or a person, including a parent company, with an acceptable proprietary interest of at least \$500,000 in the clearing member.

To become a NYMEX clearing member, the firm must purchase and/or acquire by assignment two NYMEX memberships. One membership must be owned by the clearing member or parent company or individual owner with an acceptable interest of at least \$500,000 in the clearing member. The other membership may be independently assigned.

To become a COMEX clearing member, the firm must purchase and/or acquire by assignment two COMEX memberships. One membership must be owned by the clearing member or parent company or individual owner with an acceptable proprietary interest of at least \$500,000 in the clearing member. The other may be independently assigned.

To become an OTC Derivatives clearing member, the firm must deposit a \$5,000,000 membership deposit with the Clearing House in lieu of purchasing and/or assigning Exchange memberships. The membership deposit will not be required if the OTC Derivative Clearing Member is also a CME, CBOT, NYMEX or COMEX clearing member.

Approved clearing member firms of CME, CBOT and/or NYMEX which also maintain CME Group Inc. shares in accordance with Exchange Rule 106.J. Equity Member Firm requirements are entitled to receive equity member rates on their proprietary trading. CME and CBOT clearing members who do not maintain CME Group Inc. shares are entitled to Rule 106.H. Trading Member Firm rates and NYMEX clearing member firms who do not maintain CME Group Inc. shares are entitled to Non-Member rates on their proprietary trading activity. Approved COMEX clearing member receive equity member rates on their proprietary trading in accordance with Exchange Rule 106.J. Member Firms.

Guaranty Fund Requirements

All clearing members must deposit with the clearing house a guaranty fund deposit for their obligations to the Clearing House.

The minimum guarantee fund deposit for a clearing member which will clear:

- Exchange-traded futures and options is \$500,000 or its proportionate share of the Aggregate Guaranty Fund Deposit;
- Exchange-traded futures and options and OTC products (excluding CDS and IRS) is \$2,500,000 or its proportionate share of the Aggregate Guaranty Fund Deposit;
- CDS is the greater of \$50,000,000 or the clearing member's proportionate share of the two largest CDS Clearing Member's losses as outlined in CME Rule 8H07; and
- IRS is the greater of \$50,000,000 or the clearing member's proportionate share of the two largest IRS Clearing Member's losses as outlined in CME Rule 8G07.



The minimum guaranty fund deposit of an OTC Clearing Member which clears IRS products and has an affiliated clearing member which also clears IRS products is \$25,000,000 for each affiliated IRS clearing member. In these instances, one affiliated IRS Clearing Member provides primary clearing services for customers as a FCM (with any proprietary business of such FCM only incidental to providing such clearing service for customers) and the other affiliated clearing member only provides IRS clearing services through its proprietary account for itself and/or its affiliates.

The guaranty fund requirements of the Clearing House are stated in Exchange Rule 816 (Guaranty Fund Deposit) for Exchange-traded futures and options and OTC derivatives (excluding IRS and CDS) in CME Rule 8F07 (Guaranty Fund Deposit); for IRS products in CME Rule 8G07 (IRS Financial Safeguards and Guaranty Fund Deposit); and for CDS products in CME Rule 8H07. (CDS Financial Safeguards and Guaranty Fund Deposit).

Default management procedures for exchange-traded futures and options and OTC products, excluding IRS and CDS, may be found in Exchange Rule 802: Protection of Clearing House.

The Clearing House has established separate guaranty funds for IRS and CDS which are separate and distinct from the guaranty fund for each and all other products. The IRS default management procedures may be found in CME Rule 8G.802 (Protection of Clearing House) at <http://www.cmegroup.com/rulebook/CME/8G/802.html> and CDS default management procedures may be found in CME Rule 8H.802 (Protection of Clearing House) at <http://www.cmegroup.com/rulebook/CME/8H/802.html>.

Guaranty fund minimums may be increased from time to time, depending on the mix of OTC asset classes for which the Clearing House provides clearing services.

The Clearing House Risk Committee, the IRS Risk Committee, CDS Risk Committee or the Clearing House may prescribe additional financial, including guaranty fund deposit, requirements or grant exemptions.

Capital Requirements

Capital requirements for clearing members which are not Banks are specific to its exchange membership privileges and, if applicable, any OTC products that it will clear. For non-Bank clearing members, capital is defined as Adjusted Net Capital as computed in accordance with CFTC Regulation 1.17. For Bank clearing members, capital is defined as Tier I Capital, as defined in accordance with regulations applicable to the bank clearing member. The following are the applicable capital requirements:

For a CME Clearing Member, the exchange capital requirement is the greater of the CFTC or SEC capital requirement or:

For a non-Bank clearing member:

- \$5,000,000 if it will clear only exchange-traded futures/options; or,
- \$50,000,000 if a clearing member will clear any OTC derivative product, including, but not limited to, FX OTC, CDS or IRS; or,
- 20% of aggregate performance bond requirement for all customer and house accounts containing CME-cleared CDS and IRS positions.



For a Bank clearing member:

- \$5,000,000,000 if it will clear exchange-traded futures/options; or,
- \$50,000,000 if it will clear only OTC derivative products, including, but not limited to, FX OTC, CDS or IRS; or
- 20% of aggregate performance bond requirement for all proprietary and affiliate accounts containing CME-cleared CDS and IRS positions.

For a CBOT Clearing Member, the exchange capital requirement is the greater of the CFTC or SEC capital requirement or:

For a non-Bank clearing member:

- \$5,000,000 if it will clear exchange-traded futures/options or agricultural OTC derivative products; or,
- \$50,000,000 if it will clear any OTC derivative products excluding agricultural OTC derivatives.

For a Bank clearing member:

- \$5,000,000,000 if it will clear exchange-traded futures/options; or,
- \$50,000,000 if it will clear only OTC derivative products, including, but not limited to, agricultural OTC derivative products.

For a NYMEX Clearing Member, the exchange capital requirement is the greater of the CFTC or SEC capital requirement or:

For a non-Bank clearing member:

- \$5,000,000 if it will clear only exchange-traded futures/options; or,
- \$20,000,000 if it will clear exchange-traded futures/options and it will guarantee NYMEX Floor Members pursuant to the program referenced in NYMEX Rule 992; or,
- \$50,000,000 if it will clear any OTC derivative products, including, but not limited to energy OTC derivative products.

For a Bank clearing member:

- \$5,000,000,000 if it will clear exchange-traded futures/options; or,
- \$50,000,000 if it will clear only OTC derivative products, including, but not limited to energy OTC derivative products.

For a COMEX Clearing Member, the exchange capital requirement is the greater of the CFTC or SEC capital requirement or:

For a non-Bank clearing member:

- \$5,000,000 if it will clear only exchange-traded futures/options; or,
- \$50,000,000 if it will clear any OTC derivative products, including, but not limited to metal OTC derivative products.

For a Bank clearing member:

- \$5,000,000,000 if it will clear exchange-traded futures/options; or
- \$50,000,000 if it will clear only OTC derivative products, including, but not limited to, metal OTC derivative products.



For additional information on capital requirements, refer to Rule 970 for Exchange-traded futures/options, CME Rule 8F04 for OTC derivatives, CME Rule 8H04 for CDS and CME Rule 8G04 for IRS.

The Clearing House Risk Committee, the IRS Risk Committee, CDS Risk Committee or the Clearing House may prescribe additional capital requirements or grant exemptions.

Hedge Funds

Hedge funds approved for clearing membership are subject to various additional requirements which include, but are not limited to:

- If a hedge fund is the CME, CBOT, NYMEX or COMEX Clearing Member, the hedge fund is subject to additional requirements, including (i) maintaining separate clearing accounts for each fund whose activity it will clear, (ii) additional reporting of risk exposures and liquidity resources from the funds, and (iii) maintaining assets under management of \$1 billion.
- If the investment manager of a hedge fund is the CME, CBOT, NYMEX or COMEX Clearing Member, its exchange minimum capital requirement for exchange-traded futures/options is \$50,000,000 (instead of \$5,000,000 per the above).

Settlement and Performance Bond Banks

All clearing members must maintain bank and securities safekeeping accounts at one or more Clearing House banks for purposes of posting cash and securities to meet mark-to-market variation, performance bond (i.e. margin) and guaranty fund requirements.

Currently, the approved settlement, performance bond and guaranty fund banks are:

- Bank of America, N.A.
- Bank of China Ltd., NY Branch
- BMO Harris, N.A.
- Brown Brothers Harriman & Co.
- Citibank, N.A.
- Fifth Third Bank
- Lakeside Bank
- J.P. Morgan Chase Bank, NA
- The Bank of New York Mellon

See also <http://www.cmegroup.com/clearing/financial-and-collateral-management/settlement-banks.html> for a complete listing.

Periodic Financial Reporting Requirements

Clearing members which are not Banks are subject to monthly financial statement reporting requirements. Clearing members must submit to CME Group's Financial and Regulatory Surveillance ("FRS") Department monthly CFTC Form 1-FRs or SEC FOCUS reports (if a U.S.



registered broker dealer) through the WinJammer™ system, a CME Group electronic financial statement filing system. Such monthly reporting includes the submission of an unaudited monthly report as of the clearing member's fiscal year-end.

In addition, clearing members must submit an annual certified financial statement to CME Group's FRS Department within 90 days of its fiscal year-end (60 days if the clearing member is a US broker-dealer).

Clearing members which are not Banks must comply with the requirements set forth in CFTC Regulations 1.10, 1.12, 1.17 and 1.18 unless an exemption is granted by the Clearing House.

Clearing members which are Banks are required to file any and all financial reports which are filed with its primary banking regulator. However, such financial reports must be filed on, at least, a quarterly basis, including as of the bank clearing member's fiscal year-end if such reports are also required by its primary banking regulator, and are due five days after such statements are filed with its primary banking regulator. These financial reports must demonstrate compliance with the Exchange minimum capital requirements.

In addition, clearing members which are Banks must submit an annual certified financial statement to CME Group's FRS Department. The annual certified financial statement is due five days after such statements are filed with its primary banking regulator.

All clearing members, including clearing members which are not registered as an FCM, shall make available to the CFTC, upon the CFTC's request, copies of financial reports required to be submitted to the FRS Department. The financial reporting requirements of clearing members are stated in Exchange Rule 970.

Notification Requirements

A clearing member must provide written notice to the FRS Department whenever the clearing member:

- Fails to maintain minimum capital;
- Fails to maintain early warning capital;
- Fails to maintain current books and records;
- Determines the existence of a material inadequacy as specified in CFTC Regulations;
- Fails to comply with additional accounting, reporting, financial and/or operational requirements as prescribed by the Exchange or Clearing House;
- Changes its fiscal year; or
- Changes its public accountant.

In addition, Exchange Rule 972 requires a clearing member to provide written notice to the FRS Department of any substantial reduction in its capital as compared to the most recently filed financial report.

These requirements are in addition to any notifications required by CFTC regulations.



Clearing members are also subject to additional notification requirements which include, but are not limited to:

1. Significant Business Transaction or Change in Operations. All clearing members are required to provide notice to the applicable Exchange prior to any significant business transaction. The purpose of such notification is to enable the Clearing House to better identify and monitor risks presented by significant business transactions. The notification requirements are contained in Exchange Rule 901.H (General Requirements and Obligations).

Such transactions may be subject to review and approval by the Clearing House Risk Committee or the Clearing House.

2. Firm Contact Listings. Maintaining up-to-date personnel contact information is critical in order to continue communications with our clearing members during normal, as well as crisis, situations. Therefore, clearing members are required to immediately notify the applicable Exchange of all changes to its key personnel and update its personnel contact information via the CME portal when changes occur. Further, on a semi-annual basis, firm personnel are required to review its personnel listing and signoff that all information is current and accurate. Refer to Rule 983.B.
3. Ownership Changes. All clearing members must submit and maintain with the FRS Department a current list of every person or entity that is directly or indirectly through intermediaries, the beneficial owner of 5% or more of any class of equity security of the clearing member.

Other Clearing Membership Requirements (General)

1. Anti-Money Laundering and Economic Sanctions Compliance. All clearing members are required to have a written compliance program approved by its senior management which is reasonably designed to achieve and monitor the clearing member's compliance with all applicable requirements of the Bank Secrecy Act, the International Emergency Economic Powers Act, the Trading with the Enemy Act, Executive Orders and the regulations issued by the U.S. Department of Treasury. Refer to Rule 981 (Anti-Money Laundering and Economic Sanctions Compliance).
2. Risk Management. All clearing members must have written risk management policies and procedures in place to ensure they are able to perform certain basic risk and operational functions at all times.

A clearing member that will clear OTC products must have sufficient risk management and operational procedures in place for its OTC activity. These risk management and operational procedures include procedures for settlement and default management.

Refer to Rule 982 (Risk Management) and CME Rule 8F010 (Risk Management).

3. Disaster Recovery and Business Continuity. All clearing members must have written disaster recovery and business continuity policies and procedures in place to ensure they are able to perform certain basic operational functions in the event of a significant internal

or external interruption to their operations. Refer to Exchange Rule 983 (Disaster Recovery and Business Continuity).

4. Required Records and Reports. The books and records of a clearing member shall be made promptly available for inspection upon request by the Exchange. Refer to Rule 980 (Required Records and Reports), CME Rule 8F0004.9 (OTC Clearing Member Obligations and Qualifications) and CME Rule 8H04.7 (CDS Clearing Member Obligations and Qualifications).
5. Parent Guarantee. Unless an exemption is granted, all clearing members conducting non customer and/or proprietary activity as defined by CFTC Regulation 1.3(y), must submit to the exchange a written guarantee, on a form provided by the Exchange as follows:

A parent guarantee must be obtained from each person or entity owning 5% or more of the equity securities of the clearing member. Clearing members which maintain capital of at least \$300,000,000 are granted an exemption from the parent guarantee requirements by the Exchange due to their capital level. The parent guarantee is unlimited for house obligations and does not include assessments.

6. Cross Guarantee. Unless an exemption is granted, all clearing members must submit to the Exchange a written cross guarantee, on a form provided by the Exchange, from each clearing member where the clearing member shares ownership of 10% or more with any other clearing member. By executing the cross guarantee, each clearing member guarantees the obligations of the other clearing member to the Clearing House. This rule is applicable if any CME, CBOT, NYMEX, COMEX or OTC Derivatives Clearing Member has common ownership of 10% or more. Refer to Rule 901.G (General Requirements and Obligations).

Note: If a cross guarantee affiliation exists, absent an exemption, only one entity may trade in a given OTC clearing class within the house origin (i.e., only one entity may clear IRS activity and only one entity may clear CDS activity).

7. Examinations. Each clearing member will be subject to on-site examinations and on-going oversight by the Clearing House Risk Committee. Required documents must be submitted in a timely manner and in the requested format.

Other Clearing Membership Requirements

1. Customer Activity: If the clearing member will clear Exchange-traded futures/options, foreign futures/options for U.S. customers or OTC derivative products for customer accounts, it must be properly registered or authorized for such activity by its primary regulator and it must be registered as an FCM with the CFTC and NFA. FCMs are subject to CFTC rules and regulations including rules and regulations pertaining to regulatory capital, financial reporting and customer protection.

Exchange-traded futures/options for the account of a customer will be held in a Customer Segregated Account. Foreign futures and/or foreign options traded by U.S. customers must be held in a Customer Secured 30.7 Account. OTC derivatives



submitted to clearing for the account of a customer will be assigned and held in a Customer Cleared Swap Account unless the CFTC has issued an order permitting particular OTC derivatives products to be included in customer segregated accounts. Refer to CME Rule 8F03 (Classification of Positions) and CME Rule 8H03 (Classification of Positions).

Clearing Members are required to:

- Maintain sufficient funds in segregated, secured and cleared swap accounts;
- Compute, record and report daily Segregation, Secured and Cleared Swap Amounts Statements;
- Compute, record and report bi-monthly, investments of segregated, secured 30.7 and cleared swap customer funds;
- Obtain satisfactory segregation, secured and cleared swap acknowledgement letters;
- Allow and provide for access to account information, in a form and manner prescribed by FRS Department, for each FCM clearing member's customer segregated, secured 30.7 and cleared swap customer account;
- Provide immediate written notice to CME Group's FRS Department of a failure to maintain sufficient funds in segregation, secured or cleared swap accounts;
- Provide notice of pre-approval by CEO, CFO or authorized representative of disbursement not made for the benefit of customers from segregated, secured 30.7 or cleared swap customer account which exceeds 25% of the previous day's excess funds in the respective origin.

Refer to CFTC Regulations 1.20 through 1.32 regarding customer segregated protection requirements, CFTC Regulation 30.1 through 30.12 regarding customer secured protection requirements, CFTC Regulation Part 22 regarding cleared swap protection requirements and CME Rules 8F120 through 8F132 regarding cleared OTC derivatives customer protection requirements.

2. All clearing members must ensure that its customers meet any eligibility requirements established for trading certain OTC derivatives products.

All OTC derivative transactions must be identified with an account number which identifies the originator of the transaction and indicate whether the transaction was executed as a proprietary or customer transaction. In addition, a clearing member must register all "ultimate" or end customers. Refer to CME Rule 8F09. (Customer Registration)

Disclaimer

This summary is designed to provide a brief overview of the requirements for CME, CBOT, NYMEX and COMEX Clearing Membership and OTC Derivatives Clearing Membership. The information contained in this summary has been compiled by CME Group for general purposes only. All matters pertaining to rules and specifications herein are made subject to and are superseded by official Exchange rules. Current rules should always be consulted.

| Contract Name | Rule Chapter | Commodity Code | Contract Size |
|---|--------------------|-------------------|------------------|
| <u>USD Malaysian Palm Olein Calendar Swap (Cleared Only)</u> | <u>204B</u> | <u>OPS</u> | <u>25</u> |

| Contract | | | | | Diminishing Balance Contract | Reporting Level |
|---------------------------|--------------------|--|--|---------------------------|------------------------------------|--------------------|
| Units | Type | Settlement | | Group | | |
| <u>Metric Tons</u> | <u>Swap</u> | <u>Financially Settled Swap</u> | | <u>Agriculture</u> | <u>Y</u> | <u>25</u> |

| | | | | | | | |
|---|--|--|--|---|--|---------------------------|--|
| Position Limit in Shipping Certificates, Warehouse Receipts | Spot month position comprised of future and deliveries | Spot-Month Aggregate Into Futures Equivalent Leg (1) | Spot-Month Aggregate Into Futures Equivalent Leg (2) | Spot-Month Aggregate Ratio Into Futures Equivalents Leg (1) | Spot-Month Aggregate Ratio Into Futures Equivalent s Leg (2) | Spot-month Accounts Level | Initial Spot-Month Limit (In Net Futures Equivalents) Leg (1)/ Leg (2) |
|---|--|--|--|---|--|---------------------------|--|

| | | | | | | | |
|--|---|--|--|--|--|--|---|
| Initial | | Second | | | | | Single |
| Spot- Month Limit Effective Date | Spot- Month Limit Contract Units) | Second Month Limit (In Net Futures Equivalents) | Spot- Month Limit Effective Date | Single Month Aggregate Into Futures Equivalent Leg (1) | Single Month Aggregate Into Futures Equivalent Leg (2) | Single Month Aggregate Ratio Into Leg (1) | Single Month Aggregate Ratio Into Leg (2) |

OPS

| | | | | | |
|---|---|---|---|---|--|
| Single Month Accountability Level (In Net Futures Equivalents) Leg (1) / Leg (2) | Single Month Limit (In Net Futures Equivalents) Leg (1) / Leg (2) | "Intra Crop Year Spread Allowance " | All Month Limit Aggregate Into Futures Equivalent Leg (1) | All Month Limit Aggregate Into Futures Equivalent Leg (2) | All Month Aggregate Ratio Into Futures Equivalents Leg (1) |
| <u>5,400</u> | | | <u>OPS</u> | | |

| | | |
|-------------|------------------|-------------------|
| All Month | All Month | |
| Aggregate | Accountability | |
| Ratio Into | Level (In Net | All Month Limit |
| Futures | Futures | (In Net Futures |
| Equivalents | Equivalents) Leg | Equivalents) |
| Leg (2) | (1) / Leg (2) | Leg (1) / Leg (2) |

5,400