



Advisory Number: 19-391

TO: Clearing Member Firms  
Chief Financial Officers  
Back Office Managers  
Margin Managers

FROM: CME Clearing

SUBJECT: Performance Bond Requirements

DATE: Thursday, November 21, 2019

***To receive advanced notification of Performance Bond (margin) changes, through our free automated mailing list, go to***

***<http://www.cmegroup.com/newsletter/web2lead/web2sf-old.html>***

***and subscribe to the Performance Bond Rates Advisory Notice listserver.***

As per the normal review of market volatility to ensure adequate collateral coverage, the Chicago Mercantile Exchange Inc., Clearing House Risk Management staff approved the performance bond requirements for the following products listed below.

The rates will be effective after the close of business on

**Friday, November 22, 2019.**

Current rates as of:

**Thursday, November 21, 2019.**

In this current advisory there are changes to the Short Option Minimum and/or the Volatility Scan Range. Below are descriptions of what each change affects:

The Short Option Minimum (SOM) is a charge that is applied only to portfolios concentrated in short options that do not generate a minimum margin requirement level when margins are calculated using the normal 16 SPAN scenarios. The SOM charge per short calls or short puts is a percentage of the outright margin on one underlying futures contract.

The volatility scan range is the change in implied volatility that is used in each of SPAN's 16 scenarios.

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

| CC                    | Rate Type | Description | Change | ISO | Current Initial | Current Maintenance | New Initial | New Maintenance |
|-----------------------|-----------|-------------|--------|-----|-----------------|---------------------|-------------|-----------------|
| <b>Outright Rates</b> |           |             |        |     |                 |                     |             |                 |

### **AGRICULTURE - Outright Rates**

#### **MALAYSIAN CRUDE PALM OIL CAL SWAP (CPC)**

|     |              |          |          |     |     |     |     |     |
|-----|--------------|----------|----------|-----|-----|-----|-----|-----|
| CPC | Spec         | Month 2+ | Increase | USD | 550 | 500 | 660 | 600 |
| CPC | Hedge/Member | Month 2+ | Increase | USD | 500 | 500 | 600 | 600 |

#### **USD MALAYSIAN CRUDE PALM CAL FUT (CPO)**

|     |              |         |          |     |     |     |     |     |
|-----|--------------|---------|----------|-----|-----|-----|-----|-----|
| CPO | Spec         | Mnth 2+ | Increase | USD | 550 | 500 | 660 | 600 |
| CPO | Hedge/Member | Mnth 2+ | Increase | USD | 500 | 500 | 600 | 600 |

### **FREIGHT - Outright Rates**

#### **FREIGHT ROUTE LIQUID PETROLEUM GAS (FLP)**

|     |              |           |          |     |       |       |       |       |
|-----|--------------|-----------|----------|-----|-------|-------|-------|-------|
| FLP | Spec         | Mnths 3-5 | Decrease | USD | 7,810 | 7,100 | 6,050 | 5,500 |
| FLP | Hedge/Member | Mnths 3-5 | Decrease | USD | 7,100 | 7,100 | 5,500 | 5,500 |
| FLP | Spec         | Months 6+ | Decrease | USD | 7,810 | 7,100 | 6,050 | 5,500 |
| FLP | Hedge/Member | Months 6+ | Decrease | USD | 7,100 | 7,100 | 5,500 | 5,500 |

#### **FREIGHT ROUTE TC12 (BALTIC) FUT (FRS)**

|     |              |          |          |     |       |       |       |       |
|-----|--------------|----------|----------|-----|-------|-------|-------|-------|
| FRS | Spec         | Month 2  | Decrease | USD | 9,900 | 9,000 | 6,600 | 6,000 |
| FRS | Hedge/Member | Month 2  | Decrease | USD | 9,000 | 9,000 | 6,000 | 6,000 |
| FRS | Spec         | Month 3+ | Decrease | USD | 9,900 | 9,000 | 5,500 | 5,000 |
| FRS | Hedge/Member | Month 3+ | Decrease | USD | 9,000 | 9,000 | 5,000 | 5,000 |

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

| CC   | Rate Type    | Description | Change   | ISO | Current Initial | Current Maintenance | New Initial | New Maintenance |
|--|--------------|-------------|----------|-----|-----------------|---------------------|-------------|-----------------|
| <b>Outright Rates</b>                      |              |             |          |     |                 |                     |             |                 |
| <b>METALS - Outright Rates</b>             |              |             |          |     |                 |                     |             |                 |
| <b>ALUMINUM FUTURES (ALI)</b>              |              |             |          |     |                 |                     |             |                 |
| ALI  | Spec         | Mths 1-4    | Decrease | USD | 1,980           | 1,800               | 1,650       | 1,500           |
| ALI  | Hedge/Member | Mths 1-4    | Decrease | USD | 1,800           | 1,800               | 1,500       | 1,500           |
| ALI  | Spec         | Mths 5+     | Decrease | USD | 1,980           | 1,800               | 1,650       | 1,500           |
| ALI  | Hedge/Member | Mths 5+     | Decrease | USD | 1,800           | 1,800               | 1,500       | 1,500           |
| <b>GOLD/SILVER RATIO FUTURES (GSR)</b>     |              |             |          |     |                 |                     |             |                 |
| GSR  | Spec         | Mnth1       | Increase | USD | 1,980           | 1,800               | 2,420       | 2,200           |
| GSR  | Hedge/Member | Mnth1       | Increase | USD | 1,800           | 1,800               | 2,200       | 2,200           |
| GSR  | Spec         | Mnth2       | Increase | USD | 1,980           | 1,800               | 2,420       | 2,200           |
| GSR  | Hedge/Member | Mnth2       | Increase | USD | 1,800           | 1,800               | 2,200       | 2,200           |
| <b>IRON ORE FUTURES (TIO)</b>              |              |             |          |     |                 |                     |             |                 |
| TIO  | Spec         | Mnth 2-4    | Decrease | USD | 4,510           | 4,100               | 4,125       | 3,750           |
| TIO  | Hedge/Member | Mnth 2-4    | Decrease | USD | 4,100           | 4,100               | 3,750       | 3,750           |
| TIO  | Spec         | Mnth 5-9    | Decrease | USD | 3,575           | 3,250               | 3,300       | 3,000           |
| TIO  | Hedge/Member | Mnth 5-9    | Decrease | USD | 3,250           | 3,250               | 3,000       | 3,000           |
| TIO  | Spec         | Mnth 10+    | Decrease | USD | 3,300           | 3,000               | 3,025       | 2,750           |
| TIO  | Hedge/Member | Mnth 10+    | Decrease | USD | 3,000           | 3,000               | 2,750       | 2,750           |
| <b>NYMEX HOT ROLLED STEEL FUTURES (HR)</b> |              |             |          |     |                 |                     |             |                 |
| HR   | Spec         | Mnths 8+    | Decrease | USD | 825             | 750                 | 748         | 680             |
| HR   | Hedge/Member | Mnths 8+    | Decrease | USD | 750             | 750                 | 680         | 680             |
| <b>PLATINUM FUTURES NYMEX (PL)</b>         |              |             |          |     |                 |                     |             |                 |
| PL   | Spec         | Mths 1      | Decrease | USD | 2,750           | 2,500               | 2,420       | 2,200           |
| PL   | Hedge/Member | Mths 1      | Decrease | USD | 2,500           | 2,500               | 2,200       | 2,200           |
| PL   | Spec         | Mths 2+     | Decrease | USD | 2,750           | 2,500               | 2,420       | 2,200           |
| PL   | Hedge/Member | Mths 2+     | Decrease | USD | 2,500           | 2,500               | 2,200       | 2,200           |
| <b>PLATINUM FUTURES TAS (PLT)</b>          |              |             |          |     |                 |                     |             |                 |
| PLT  | Spec         | Mths 1      | Decrease | USD | 2,750           | 2,500               | 2,420       | 2,200           |
| PLT  | Hedge/Member | Mths 1      | Decrease | USD | 2,500           | 2,500               | 2,200       | 2,200           |
| PLT  | Spec         | Mths 2+     | Decrease | USD | 2,750           | 2,500               | 2,420       | 2,200           |
| PLT  | Hedge/Member | Mths 2+     | Decrease | USD | 2,500           | 2,500               | 2,200       | 2,200           |

## **SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS**

| CC  | Rate Type    | Description | Change   | ISO | Current Initial | Current Maintenance | New Initial | New Maintenance |
|---|--------------|-------------|----------|-----|-----------------|---------------------|-------------|-----------------|
| <b>Intra Spreads</b>  |              |             |          |     |                 |                     |             |                 |
| <b>NATURAL GAS - Intra Spreads</b>  |              |             |          |     |                 |                     |             |                 |
| <b>COLUMBUS GULF MAINLINE NG BASIS - All Months (COLUMB GULF MAINLINE NG BASIS)</b> |              |             |          |     |                 |                     |             |                 |
| 5Z  | Spec         |             | Increase | USD | 110             | 100                 | 165         | 150             |
| 5Z  | Hedge/Member |             | Increase | USD | 100             | 100                 | 150         | 150             |

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

| Rate Type  | Change   | Ratio | Current Initial | Current Maintenance | New Initial | New Maintenance |
|--|----------|-------|-----------------|---------------------|-------------|-----------------|
| <b>Inter-commodity Spread Rates</b>  |          |       |                 |                     |             |                 |
| <b>INTEREST RATES - Inter-commodity Spread Rates</b>   |          |       |                 |                     |             |                 |
| <b>10YR INTEREST RATE SWAP FUTURE ERIS Contracts 1-25 (LIY- CME) vs ULTRA LONG TREASURY BOND (UBE - CME)</b> |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | -5:+2 | 60%             | 60%                 | 35%         | 35%             |
| <b>10YR INTEREST RATE SWAP FUTURE ERIS Tier 3 vs 10YR TREASURY</b>   |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +1:-1 | 80%             | 80%                 | 60%         | 60%             |
| <b>10YR INTEREST RATE SWAP FUTURE ERIS Tier 4 vs 10YR TREASURY</b>   |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +1:-1 | 80%             | 80%                 | 75%         | 75%             |
| <b>10YR INTEREST RATE SWAP FUTURE ERIS Tier 4 vs 5YR TREASURY</b>  |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | -2:+3 | 80%             | 80%                 | 60%         | 60%             |
| <b>10YR INTEREST RATE SWAP FUTURE ERIS Tier 5 vs 10YR TREASURY</b>   |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +1:-1 | 80%             | 80%                 | 75%         | 75%             |
| <b>10YR INTEREST RATE SWAP FUTURE ERIS Tier 5 vs 5YR TREASURY</b>  |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +2:-3 | 80%             | 80%                 | 75%         | 75%             |
| <b>1M SOFR FUTURES (SR1 - CME) Month 2 vs 2-YEAR T-NOTE (26 - CME) All Months</b>                            |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +1:-1 | 35%             | 35%                 | 50%         | 50%             |
| <b>1M SOFR FUTURES (SR1 - CME) Month 2 vs 5-YEAR T-NOTE (25 - CME) All Months</b>                            |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +2:-3 | 35%             | 35%                 | 45%         | 45%             |
| <b>1M SOFR FUTURES (SR1 - CME) Month 3 vs 2-YEAR T-NOTE (26 - CME) All Months</b>                            |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +1:-1 | 35%             | 35%                 | 55%         | 55%             |
| <b>1M SOFR FUTURES (SR1 - CME) Month 3 vs 5-YEAR T-NOTE (25 - CME) All Months</b>                            |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +2:-3 | 35%             | 35%                 | 50%         | 50%             |
| <b>1M SOFR FUTURES (SR1 - CME) Month 4 vs 2-YEAR T-NOTE (26 - CME) All Months</b>                            |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +1:-1 | 35%             | 35%                 | 65%         | 65%             |
| <b>1M SOFR FUTURES (SR1 - CME) Month 4 vs 5-YEAR T-NOTE (25 - CME) All Months</b>                            |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +2:-3 | 35%             | 35%                 | 50%         | 50%             |
| <b>1M SOFR FUTURES (SR1 - CME) Month 5 vs 5-YEAR T-NOTE (25 - CME) All Months</b>                            |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +2:-3 | 35%             | 35%                 | 60%         | 60%             |
| <b>1M SOFR FUTURES (SR1 - CME) Month 6 vs 5-YEAR T-NOTE (25 - CME) All Months</b>                            |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +2:-3 | 35%             | 35%                 | 60%         | 60%             |
| <b>1M SOFR FUTURES (SR1 - CME) Month 7 vs 5-YEAR T-NOTE (25 - CME) All Months</b>                            |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +2:-3 | 35%             | 35%                 | 60%         | 60%             |
| <b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 01</b>   |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +2:-3 | 50%             | 50%                 | 60%         | 60%             |

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

| Rate Type   | Change   | Ratio  | Current Initial | Current Maintenance | New Initial | New Maintenance |
|---|----------|--------|-----------------|---------------------|-------------|-----------------|
| <b>Inter-commodity Spread Rates</b>                               |          |        |                 |                     |             |                 |
| <b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 02</b>      |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | +2:-3  | 70%             | 70%                 | 85%         | 85%             |
| <b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 03</b>      |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | +2:-3  | 75%             | 75%                 | 85%         | 85%             |
| <b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 04</b>      |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | +2:-3  | 70%             | 70%                 | 80%         | 80%             |
| <b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 06</b>      |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Decrease | +2:-3  | 70%             | 70%                 | 65%         | 65%             |
| <b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 07</b>      |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Decrease | +2:-3  | 70%             | 70%                 | 65%         | 65%             |
| <b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 08</b>      |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Decrease | +2:-3  | 70%             | 70%                 | 65%         | 65%             |
| <b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 09</b>      |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Decrease | +2:-3  | 70%             | 70%                 | 65%         | 65%             |
| <b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 10</b>      |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Decrease | +2:-3  | 70%             | 70%                 | 65%         | 65%             |
| <b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 11</b>      |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Decrease | +2:-3  | 70%             | 70%                 | 65%         | 65%             |
| <b>2YR INTEREST RATE SWAP FUTURE ERIS Tier 3 vs 2YR TREASURY</b>  |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Decrease | +2:-1  | 70%             | 70%                 | 50%         | 50%             |
| <b>2YR INTEREST RATE SWAP FUTURE ERIS Tier 3 vs 30YR TREASURY</b> |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Decrease | +10:-1 | 25%             | 25%                 | 0%          | 0%              |
| <b>2YR INTEREST RATE SWAP FUTURE ERIS Tier 4 vs 10YR TREASURY</b> |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | -4:+1  | 40%             | 40%                 | 60%         | 60%             |
| <b>2YR INTEREST RATE SWAP FUTURE ERIS Tier 4 vs 2YR TREASURY</b>  |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | -2:+1  | 70%             | 70%                 | 80%         | 80%             |
| <b>2YR INTEREST RATE SWAP FUTURE ERIS Tier 4 vs 30YR TREASURY</b> |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | -10:+1 | 25%             | 25%                 | 35%         | 35%             |
| <b>2YR INTEREST RATE SWAP FUTURE ERIS Tier 5 vs 10YR TREASURY</b> |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | +4:-1  | 45%             | 45%                 | 70%         | 70%             |
| <b>2YR INTEREST RATE SWAP FUTURE ERIS Tier 5 vs 2YR TREASURY</b>  |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Decrease | +2:-1  | 95%             | 95%                 | 90%         | 90%             |
| Spread Credit Rate  | Increase | +5:-2  | 70%             | 70%                 | 80%         | 80%             |

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

| Rate Type   | Change   | Ratio  | Current Initial | Current Maintenance | New Initial | New Maintenance |
|---|----------|--------|-----------------|---------------------|-------------|-----------------|
| <b>Inter-commodity Spread Rates</b>   |          |        |                 |                     |             |                 |
| <b>2YR INTEREST RATE SWAP FUTURE ERIS Tier 5 vs 30YR TREASURY</b>   |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | +10:-1 | 30%             | 30%                 | 50%         | 50%             |
| <b>3M SOFR FUTURES (SR3 - CME) Month 3 vs 2-YEAR T-NOTE (26 - CME) All Months</b>                                   |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | +3:-2  | 75%             | 75%                 | 85%         | 85%             |
| <b>3M SOFR FUTURES (SR3 - CME) Months 13-16 vs 2-YEAR T-NOTE (26 - CME) All Months</b>                              |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | +3:-2  | 70%             | 70%                 | 80%         | 80%             |
| <b>3M SOFR FUTURES (SR3 - CME) Months 17+ vs 2-YEAR T-NOTE (26 - CME) All Months</b>                                |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | +3:-2  | 70%             | 70%                 | 80%         | 80%             |
| <b>3M SOFR FUTURES (SR3 - CME) Months 4-5 vs 2-YEAR T-NOTE (26 - CME) All Months</b>                                |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | +3:-2  | 70%             | 70%                 | 85%         | 85%             |
| <b>3M SOFR FUTURES (SR3 - CME) Months 6-8 vs 2-YEAR T-NOTE (26 - CME) All Months</b>                                |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | +3:-2  | 70%             | 70%                 | 85%         | 85%             |
| <b>3M SOFR FUTURES (SR3 - CME) Months 9-12 vs 2-YEAR T-NOTE (26 - CME) All Months</b>                               |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | +3:-2  | 70%             | 70%                 | 80%         | 80%             |
| <b>3YR INTEREST RATE SWAP FUTURE ERIS (LIC - CME) Tier 3 vs 10-YEAR T-NOTE (21 - CME)</b>                           |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Decrease | +5:-2  | 50%             | 50%                 | 35%         | 35%             |
| <b>3YR INTEREST RATE SWAP FUTURE ERIS (LIC - CME) Tier 3 vs 5-YEAR T-NOTE (25 - CME)</b>                            |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Decrease | +5:-3  | 50%             | 50%                 | 30%         | 30%             |
| <b>3YR INTEREST RATE SWAP FUTURE ERIS (LIC - CME) Tier 3 vs ULTRA 10-YEAR U.S. TREASURY NOTE FUTURES (TN - CME)</b> |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Decrease | +4:-1  | 45%             | 45%                 | 35%         | 35%             |
| <b>3YR INTEREST RATE SWAP FUTURE ERIS (LIC - CME) Tier 6 vs 10-YEAR T-NOTE (21 - CME)</b>                           |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | +5:-2  | 50%             | 50%                 | 60%         | 60%             |
| <b>3YR INTEREST RATE SWAP FUTURE ERIS (LIC - CME) Tier 6 vs 5-YEAR T-NOTE (25 - CME)</b>                            |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | +5:-3  | 50%             | 50%                 | 65%         | 65%             |
| <b>3YR INTEREST RATE SWAP FUTURE ERIS (LIC - CME) Tier 7 vs 10-YEAR T-NOTE (21 - CME)</b>                           |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | +5:-2  | 50%             | 50%                 | 60%         | 60%             |
| <b>3YR INTEREST RATE SWAP FUTURE ERIS (LIC - CME) Tier 7 vs 5-YEAR T-NOTE (25 - CME)</b>                            |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | -5:+3  | 50%             | 50%                 | 65%         | 65%             |
| <b>3YR INTEREST RATE SWAP FUTURE ERIS (LIC - CME) Tier 8 vs 10-YEAR T-NOTE (21 - CME)</b>                           |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | +5:-2  | 65%             | 65%                 | 70%         | 70%             |
| <b>3YR INTEREST RATE SWAP FUTURE ERIS (LIC - CME) Tier 8 vs 5-YEAR T-NOTE (25 - CME)</b>                            |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | -5:+3  | 65%             | 65%                 | 75%         | 75%             |
| <b>3YR INTEREST RATE SWAP FUTURE ERIS LIC- CME) Tier 5 vs 2-YEAR T-NOTE (26 - CME)</b>                              |          |        |                 |                     |             |                 |
| Spread Credit Rate  | Increase | +3:-2  | 50%             | 50%                 | 60%         | 60%             |

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

| Rate Type  | Change   | Ratio  | Current Initial | Current Maintenance | New Initial | New Maintenance |
|--|----------|--------|-----------------|---------------------|-------------|-----------------|
| <b>Inter-commodity Spread Rates</b>  |          |        |                 |                     |             |                 |
| <b>3YR INTEREST RATE SWAP FUTURE ERIS LIC- CME) Tier 6 vs 2-YEAR T-NOTE (26 - CME)</b>         |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +3:-2  | 50%             | 50%                 | 70%         | 70%             |
| <b>3YR INTEREST RATE SWAP FUTURE ERIS LIC- CME) Tier 7 vs 2-YEAR T-NOTE (26 - CME)</b>         |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Increase | -3:+2  | 50%             | 50%                 | 75%         | 75%             |
| <b>3YR INTEREST RATE SWAP FUTURE ERIS LIC- CME) Tier 8 vs 2-YEAR T-NOTE (26 - CME)</b>         |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Increase | -3:+2  | 70%             | 70%                 | 80%         | 80%             |
| <b>4 YR INTEREST RATE SWAP FUTURE ERIS LID- CME) CONTRACTS 13+ vs 5-YEAR T-NOTE (25 - CME)</b> |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Increase | -3:+2  | 70%             | 70%                 | 75%         | 75%             |
| <b>5 Year Note (25) vs. Eurodollar (ED) Tier 01</b>  |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +2:-1  | 45%             | 45%                 | 60%         | 60%             |
| <b>5 Year Note (25) vs. Eurodollar (ED) Tier 02</b>  |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +2:-1  | 70%             | 70%                 | 80%         | 80%             |
| <b>5 Year Note (25) vs. Eurodollar (ED) Tier 03</b>  |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +2:-1  | 70%             | 70%                 | 80%         | 80%             |
| <b>5 Year Note (25) vs. Eurodollar (ED) Tier 04 [contracts 13-16]</b>                          |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +2:-1  | 70%             | 70%                 | 80%         | 80%             |
| <b>5 Year Note (25) vs. Eurodollar (ED) Tier 08 [contracts 29-32]</b>                          |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +2:-1  | 75%             | 75%                 | 70%         | 70%             |
| <b>5 Year Note (25) vs. Eurodollar (ED) Tier 09 [contracts 33-36]</b>                          |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +2:-1  | 75%             | 75%                 | 70%         | 70%             |
| <b>5 Year Note (25) vs. Eurodollar (ED) Tier 10 [contracts 37-40]</b>                          |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +2:-1  | 75%             | 75%                 | 70%         | 70%             |
| <b>5 Year Note (25) vs. Eurodollar (ED) Tier 11 [contracts 41-44]</b>                          |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +2:-1  | 75%             | 75%                 | 70%         | 70%             |
| <b>5 Year Treasury Note (25) vs. Fed Funds (CBOT) (41) Tier 2 (Months 2-4)</b>                 |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +3:-2  | 35%             | 35%                 | 45%         | 45%             |
| <b>5 Year Treasury Note (25) vs. Fed Funds (CBOT) (41) Tier 3 (Months 5-12)</b>                |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +2:-3  | 55%             | 55%                 | 70%         | 70%             |
| <b>5 Year Treasury Note (25) vs. Fed Funds (CBOT) (41) Tier 4 (Months 13-24)</b>               |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +2:-3  | 60%             | 60%                 | 70%         | 70%             |
| <b>5 Year Treasury Note (25) vs. Fed Funds (CBOT) (41) Tier 5 (Months 25+)</b>                 |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +2:-3  | 60%             | 60%                 | 70%         | 70%             |
| <b>5YR INTEREST RATE SWAP FUTURE ERIS Contracts 11-12 vs 5YR TREASURY</b>                      |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +10:-9 | 75%             | 75%                 | 65%         | 65%             |

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

| Rate Type  | Change   | Ratio  | Current Initial | Current Maintenance | New Initial | New Maintenance |
|--|----------|--------|-----------------|---------------------|-------------|-----------------|
| <b>Inter-commodity Spread Rates</b>  |          |        |                 |                     |             |                 |
| <b>5YR INTEREST RATE SWAP FUTURE ERIS Contracts 13-14 vs 5YR TREASURY</b>                            |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +10:-9 | 80%             | 80%                 | 70%         | 70%             |
| <b>5YR INTEREST RATE SWAP FUTURE ERIS Contracts 7-8 vs 5YR TREASURY</b>                              |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +10:-9 | 70%             | 70%                 | 45%         | 45%             |
| <b>5YR INTEREST RATE SWAP FUTURE ERIS Contracts 9-10 vs 5YR TREASURY</b>                             |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +10:-9 | 70%             | 70%                 | 55%         | 55%             |
| <b>5YR INTEREST RATE SWAP FUTURE ERIS Contracts Tier 11 vs 2YR TREASURY</b>                          |          |        |                 |                     |             |                 |
| Spread Credit Rate   | New      | +9:-10 |                 |                     | 75%         | 75%             |
| <b>5YR INTEREST RATE SWAP FUTURE ERIS Contracts Tier 4 vs 2YR TREASURY</b>                           |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | -9:+10 | 70%             | 70%                 | 50%         | 50%             |
| <b>5YR INTEREST RATE SWAP FUTURE ERIS Contracts Tier 5 vs 2YR TREASURY</b>                           |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +9:-10 | 70%             | 70%                 | 60%         | 60%             |
| <b>5YR INTEREST RATE SWAP FUTURE ERIS Tier 3 vs 10YR TREASURY</b>                                    |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | -7:+4  | 70%             | 70%                 | 0%          | 0%              |
| <b>5YR INTEREST RATE SWAP FUTURE ERIS Tier 4 (LIW - CME) vs ULTRA LONG TREASURY BOND (UBE - CME)</b> |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | -7:+1  | 60%             | 60%                 | 35%         | 35%             |
| <b>5YR INTEREST RATE SWAP FUTURE ERIS Tier 4 vs 10YR TREASURY</b>                                    |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +7:-4  | 80%             | 80%                 | 40%         | 40%             |
| <b>5YR INTEREST RATE SWAP FUTURE ERIS Tier 4 vs 30YR TREASURY</b>                                    |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | -4:+1  | 60%             | 60%                 | 35%         | 35%             |
| <b>5YR INTEREST RATE SWAP FUTURE ERIS Tier 5 (LIW - CME) vs ULTRA LONG TREASURY BOND (UBE - CME)</b> |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +7:-1  | 60%             | 60%                 | 45%         | 45%             |
| <b>5YR INTEREST RATE SWAP FUTURE ERIS Tier 5 vs 10YR TREASURY</b>                                    |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +7:-4  | 80%             | 80%                 | 50%         | 50%             |
| <b>5YR INTEREST RATE SWAP FUTURE ERIS Tier 5 vs 30YR TREASURY</b>                                    |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +4:-1  | 60%             | 60%                 | 50%         | 50%             |
| <b>5YR INTEREST RATE SWAP FUTURE ERIS Tier 6 (LIW - CME) vs ULTRA LONG TREASURY BOND (UBE - CME)</b> |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +7:-1  | 60%             | 60%                 | 45%         | 45%             |
| <b>5YR INTEREST RATE SWAP FUTURE ERIS Tier 6 vs 10YR TREASURY</b>                                    |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +7:-4  | 80%             | 80%                 | 60%         | 60%             |
| <b>5YR INTEREST RATE SWAP FUTURE ERIS Tier 6 vs 30YR TREASURY</b>                                    |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +4:-1  | 60%             | 60%                 | 50%         | 50%             |
| <b>5YR INTEREST RATE SWAP FUTURE ERIS Tier 7 vs 10YR TREASURY</b>                                    |          |        |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +7:-4  | 80%             | 80%                 | 70%         | 70%             |

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

| Rate Type  | Change   | Ratio | Current Initial | Current Maintenance | New Initial | New Maintenance |
|--|----------|-------|-----------------|---------------------|-------------|-----------------|
| <b>Inter-commodity Spread Rates</b>  |          |       |                 |                     |             |                 |
| <b>5YR INTEREST RATE SWAP FUTURE ERIS Tier 8 vs 10YR TREASURY</b>  |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +7:-4 | 80%             | 80%                 | 75%         | 75%             |
| <b>ULTRA 10-YEAR U.S. TREASURY NOTE FUTURES (TN - CME) vs 10YR INTEREST RATE SWAP FUTURE ERIS Tier 5 (LIY - CME)</b> |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +2:-3 | 75%             | 75%                 | 60%         | 60%             |
| <b>ULTRA 10-YEAR U.S. TREASURY NOTE FUTURES (TN - CME) vs 2YR INTEREST RATE SWAP FUTURE ERIS Tier 5</b>              |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Increase | +5:-1 | 45%             | 45%                 | 65%         | 65%             |
| <b>ULTRA 10-YEAR U.S. TREASURY NOTE FUTURES (TN - CME) vs 5YR INTEREST RATE SWAP FUTURE ERIS Tier 4 (LIW - CME)</b>  |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +2:-5 | 65%             | 65%                 | 40%         | 40%             |
| <b>ULTRA 10-YEAR U.S. TREASURY NOTE FUTURES (TN - CME) vs 5YR INTEREST RATE SWAP FUTURE ERIS Tier 5 (LIW - CME)</b>  |          |       |                 |                     |             |                 |
| Spread Credit Rate   | Decrease | +5:-2 | 65%             | 65%                 | 50%         | 50%             |
| <b>ULTRA 10-YEAR U.S. TREASURY NOTE FUTURES (TN - CME) vs SOFR 3 MONTH (SR3 - CME) Tier 8</b>                        |          |       |                 |                     |             |                 |
| Spread Credit Rate   | New      | +2:-9 |                 |                     | 70%         | 70%             |