

**SUBMISSION COVER SHEET**

**IMPORTANT:** Check box if Confidential Treatment is requested

Registered Entity Identifier Code (optional): 15-536 (1 of 2)

Organization: Chicago Mercantile Exchange Inc. ("CME")

Filing as a:  DCM  SEF  DCO  SDR

Please note - only ONE choice allowed.

Filing Date (mm/dd/yy): 12/16/15 Filing Description: Listing of 1-Month and 3-Month Euro/US Dollar ("EUR/USD") Realized Volatility Futures

**SPECIFY FILING TYPE**

Please note only ONE choice allowed per Submission.

**Organization Rules and Rule Amendments**

- Certification § 40.6(a)
- Approval § 40.5(a)
- Notification § 40.6(d)
- Advance Notice of SIDCO Rule Change § 40.10(a)
- SIDCO Emergency Rule Change § 40.10(h)

**Rule Numbers:**

**New Product**

Please note only ONE product per Submission.

- Certification § 40.2(a)
- Certification Security Futures § 41.23(a)
- Certification Swap Class § 40.2(d)
- Approval § 40.3(a)
- Approval Security Futures § 41.23(b)
- Novel Derivative Product Notification § 40.12(a)
- Swap Submission § 39.5

**Official Product Name:** 1-Month and 3-Month Euro/US Dollar ("EUR/USD") Realized Volatility Futures

**Product Terms and Conditions (product related Rules and Rule Amendments)**

- Certification § 40.6(a)
- Certification Made Available to Trade Determination § 40.6(a)
- Certification Security Futures § 41.24(a)
- Delisting (No Open Interest) § 40.6(a)
- Approval § 40.5(a)
- Approval Made Available to Trade Determination § 40.5(a)
- Approval Security Futures § 41.24(c)
- Approval Amendments to enumerated agricultural products § 40.4(a), § 40.5(a)
- "Non-Material Agricultural Rule Change" § 40.4(b)(5)
- Notification § 40.6(d)

**Official Name(s) of Product(s) Affected:**

**Rule Numbers:**

December 16, 2015

**VIA ELECTRONIC PORTAL**

Mr. 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 40.2(a) Certification. Notification Regarding the Initial Listing of 1-Month and 3-Month Euro/US Dollar (“EUR/USD”) Realized Volatility Futures. CME Submission No. 15-536 (1 of 2)**

Dear Mr. Kirkpatrick:

Chicago Mercantile Exchange Inc. (“CME” or “Exchange”) is notifying the Commodity Futures Trading Commission (“CFTC” or “Commission”) that it is self-certifying the initial listing of the 1-Month Euro/U.S. Dollar (EUR/USD) VolContracts™ (Euro 1-Month VolContracts™) Futures and the 3-Month Euro/U.S. Dollar (EUR/USD) VolContracts™ (Euro 3-Month VolContracts™) Futures (the “Contracts”) for trading on CME Globex and for submission for clearing on CME ClearPort, effective on Sunday, December 20, 2015 for trade date Monday, December 21, 2015.

***Section 1 — Terms and Conditions of the Contracts***

The Contracts will be cash-settled contracts that will be financially settled to \$1,000 times the Euro 1-Month Reference Value and \$1,000 times the Euro 3-Month Reference Value, respectively. The Euro 1-Month and 3-Month Reference Values will be calculated as the annualized standard deviations of the log normal returns of the daily futures settlement prices of the corresponding underlying CME EUR/USD futures contract. For example, the Euro 1-Month and 3-Month Reference Values for the 1-Month and 3-Month EUR/USD Realized Volatility futures with a March 2016 expiry will be based on the annualized standard deviations of the lognormal returns of the daily futures settlement prices of the March 2016 CME EUR/USD futures expiry.

The Contracts’ Reference Values shall be rounded to the nearest 1/100th of an index point – *i.e.*, 0.01 or the second decimal price locator in pennies.

The Contracts’ will be quoted as index values. For example, a volatility of 20 percent will be quoted as 20.00. The Contracts will have a notional contract size similar to that of a grain futures contract – *e.g.*, generally between zero and \$50,000. On a concurrent basis, CME will offer three consecutive monthly contract expirations in 1-Month EUR/USD Realized Volatility futures in the January, February, March, April, May, June, July, August, September, October, November, and December cycle. CME also will concurrently offer three quarterly contract expirations in 3-Month EUR/USD Realized Volatility futures for trading in the March, June, September, and December cycle. The Contracts will feature a minimum tick size of 0.01 index points (\$10.00). CME Globex and CME ClearPort hours for the Contracts will be 5:00 p.m. to 4:00 p.m. Central time (“CT”), Sunday through Friday. Trading in expiring contracts in the Contracts will cease at 11 a.m. CT on the second Friday immediately preceding the third Wednesday of the expiring contract month. The Contracts will have a proposed single month position accountability level of 5,000 contracts, an all months position accountability level of 5,000 contracts, and a reportable position level of 25 contracts. Lastly, the Contracts will be eligible for exchange-for-related-position (“EFRP”) transactions.

At launch, 1-Month EUR/USD Realized Volatility futures will initially offer trading in the January 2016, February 2016, and March 2016 contract months, while 3-Month EUR/USD Realized Volatility futures will initially offer trading in the March 2016, June 2016, and September 2016 contract months.

Appendices A and B summarize the proposed salient features and CME Rulebook Chapter 261B on the proposed trading terms and conditions of 3-Month EUR/USD Realized Volatility futures.

Appendices C and D summarize the proposed salient features and CME Rulebook Chapter 261C on the proposed trading terms and conditions of 1-Month EUR/USD Realized Volatility futures.

### ***Section 2 – Reportable Positions and Position Accountability***

The Contracts will have a single month position accountability of 5,000 contracts and an all months position accountability of 5,000 contracts. In addition, 1-Month and 3-Month EUR/USD Realized Volatility futures will each have a reportable position level of 25 contracts, which is typical for CME foreign exchange (“FX”) futures contracts. The Position Limit, Position Accountability and Reportable Level Table and Header Notes located in the Interpretations and Special Notices Section of Chapter 5 of the CME Rulebook has been amended to reflect the proposed limits for the Contracts. Appendix E, provided under separate cover, summarizes these proposed limits.

### ***Section 3 – CME Globex Non-Reviewable Trading Ranges***

The non-reviewable trading ranges that apply to trading in the Contracts on CME Globex will resemble, in the main, those that apply to CME standard-sized FX futures. Appendix F references these ranges.

### ***Section 4 – Compliance with Core Principles***

The Exchange reviewed the designated contract market core principles (“Core Principles”) as set forth in the Commodities Exchange Act (“CEA”) and identified that the listing of the Contracts may have some bearing on the following Core Principles:

#### ***Core Principle 2 – Compliance with Rules***

Trading in the Contracts will be subject to CME Rulebook Chapter 4, which includes prohibitions against fraudulent, noncompetitive, unfair, and abusive practices. Additionally, trading in the Contracts will be subject to the Exchange’s trade practice rules, the majority of which are contained in Chapter 5 and Chapter 8 of the CME Rulebook. As with all products listed for trading on one of CME Group’s designated contract markets, trading activity in the Contracts will be subject to monitoring and surveillance by CME Group’s Market Regulation Department. The Market Regulation Department has the authority to exercise its investigatory and enforcement power where potential rule violations are identified.

#### ***Core Principle 3 – Contracts Not Readily Subject to Manipulation***

CME believes the Exchange’s extant standard-sized EUR/USD futures contract, which is the effective underlying cash market instrument of 1-Month and 3-Month EUR/USD Realized Volatility futures, is not readily susceptible to cash market manipulation as required by Core Principle 3.

First, the CME EUR/USD futures contract is a global industry pricing benchmark for Euro-US dollar transactions that is used by a large and diverse group of Euro-US dollar market participants worldwide. CME EUR/USD futures has a demonstrably liquid and deep central limit order book and is the most actively traded and held EUR/USD futures contract in the world.

Second, CME EUR/USD futures is subject to special price fluctuation limits under CME Rule 589. These daily price limits, which CME implemented in December 2014, are designed to protect the Exchange’s EUR/USD futures contract from large illiquidity-driven price movements while retaining the flexibility to accommodate price discovery and cash-futures convergence in the Euro-US dollar exchange rate.

Third, according to the 2013 Triennial Central Bank Survey conducted by the Bank for International Settlements (“BIS”), the Euro, which is the underlying cash market instrument of the CME EUR/USD futures contract, is the second most traded currency in the world behind the US dollar.<sup>1</sup> In addition, the Euro is part of the CLS global cash settlement system, an international payment versus payment settlement service that mitigates settlement risk for foreign currency transactions of its settlement members and their customers through central bank accounts.

***Core Principle 4 – Prevention of Market Disruption***

Trading in the Contracts shall be subject to the rulebook of the CME designated contract market, which includes prohibitions on manipulation, price distortion, and disruption to the cash or physical delivery process. As with any new product listed for trading on a CME Group designated contract market, trading activity in the futures contracts proposed herein will be subject to monitoring and surveillance by CME Group’s Market Regulation Department.

***Core Principle 5 – Position Limits or Accountability***

1-Month and 3-Month EUR/USD Realized Volatility futures each will have single month position accountability of 5,000 contracts and all months position accountability of 5,000 contracts, respectively.

The accountability levels for the Contracts are set at conservative levels that are less than 25% of the monthly deliverable supply in the underlying market in accordance with the guidelines included in CFTC Part 151.

***Core Principle 7 – Availability of General Information***

CME shall publish on its website information in regard to futures contract specifications, terms, and conditions, as well as daily trading volume, open interest, and price information for the Contracts.

***Core Principle 8 – Daily Publication of Trading Information***

CME shall publish contract trading volumes, open interest levels, and price information daily of the Contracts on its website and through quote vendors.

***Core Principle 9 – Execution of Transactions***

The Contracts will be listed for trading on the CME Globex electronic trading platform and for submission for clearing via CME ClearPort. The CME Globex trading venue provides for competitive and open execution of transactions. The CME Globex platform provides a transparent, open, and efficient mechanism to electronically execute trades on screen.

***Core Principle 10 – Trade Information***

All requisite trade information for the Contracts shall be included in the audit trail and will suffice for the Market Regulation Department to monitor for market abuse.

***Core Principle 11 – Financial Integrity of Transactions***

All contracts traded on the Exchange will be cleared by CME Clearing, which is registered with the CFTC as a derivatives clearing organization, and which is subject to all Commission regulations related thereto.

***Core Principle 12 – Protection of Markets and Market Participants***

CME Rulebook Chapters 4 and 5 set forth multiple prohibitions that preclude intermediaries from disadvantaging their customers. These rules apply to trading in all of the Exchange’s competitive trading venues and will apply to the Contracts.

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<sup>1</sup> See *Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity in 2013*, Bank for International Settlements, September 2013, table 2, page 10, <http://www.bis.org/publ/rpfx13.htm>.

**Core Principle 13 – Disciplinary Procedures**

CME Rulebook Chapter 4 provides for the Exchange to discipline, suspend, or expel members or market participants who violate the rules of the Exchange. Trading in the Contracts will be subject to these provisions. The Market Regulation Department has the authority to exercise its powers of enforcement in the event that rule violations in these products are identified.

**Core Principle 14 – Dispute Resolution**

Disputes with respect to the Contracts will be subject to the arbitration provisions set forth in CME Rulebook Chapter 6, which allow all nonmembers to submit claims for financial losses resulting from transactions on the Exchange to arbitration. Pursuant to these provisions, any member named as a respondent in any such claim submitted by a nonmember is required to participate in arbitration proceedings. Additionally, the Exchange requires members to resolve via arbitration all disputes concerning transactions on the Exchange.

CME certifies that listing of the Contracts comply with the Act and rules thereunder. There were no substantive opposing views to this proposal.

The Exchange certifies that this submission has been concurrently posted on the Exchange's website at <http://www.cmegroup.com/market-regulation/rule-filings.html>.

Should you have any questions concerning the above, please contact the undersigned at 212-299-2200 or via e-mail at [CMEGSubmissionInquiry@cmegroup.com](mailto:CMEGSubmissionInquiry@cmegroup.com).

Sincerely,

/s/ Christopher Bowen  
Managing Director and Chief Regulatory Counsel

Attachments:

- Appendix A – Contract Specifications for 3-Month EUR/USD Realized Volatility Futures
- Appendix B – CME Rulebook Chapter 261B (“3-Month EUR/USD Realized Volatility Futures”)
- Appendix C – Contract Specifications for 1-Month EUR/USD Realized Volatility Futures
- Appendix D – CME Rulebook Chapter 261C (“1-Month EUR/USD Realized Volatility Futures”)
- Appendix E – Position Limit, Position Accountability and Reportable Level Table in Chapter 5 of the CME Rulebook (attached under separate cover)
- Appendix F – CME Rule 588.H. (“Globex Non-Reviewable Trading Ranges”)
- Appendix G – Cash Market Overview and Analysis of Deliverable Supply
- Appendix H – Fee Schedule

## Appendix A

### 3-Month Euro/US Dollar (“EUR/USD”) Realized Volatility Futures

Description	A cash-settled futures contract on the 3-month realized volatility of the CME Euro/US Dollar futures contract that calls for the physical delivery of 125,000 Euros for US dollars.
Product Code	36E
Rulebook Chapter	Chapter 261B
Contract Size	\$1,000 times the Euro 3-Month Reference Value, e.g., \$20,000.00 (= \$1,000 x 20.00).
Contract Months	3 contract expirations in the March, June, September, and December quarterly cycle.
First Listed Months	March 2016, June 2016, and September 2016
Price Basis	Quoted in US dollars.
Minimum Price Fluctuation	0.01 index points (\$10.00)
Daily Settlement	Settlement prices established at 2:00 p.m. Central Time (“CT”).
Last Trading Day	2:00 p.m. CT on the second Friday immediately preceding the third Wednesday of the contract month – <i>i.e.</i> , usually a Friday.
Contract Settlement	Financial settlement
Final Settlement Price	The final settlement price of an expiring contract shall be \$1,000 times the Euro 3-Month Reference Value. The Euro 3-Month Reference Value shall be rounded to the nearest 1/100th of an index point – <i>i.e.</i> , 0.01 or the second decimal price locator in pennies.
Trading Hours	CME Globex: Sundays – Friday, 5:00 p.m. – 4:00 p.m. CT the next day, except on Friday, when Globex closes at 4:00 p.m. CT and reopens Sunday at 5:00 p.m. CT.  CME ClearPort: Sunday – Friday, 5:00 p.m. – 4:00 p.m. CT with a 60-minute break each day beginning at 4:00 p.m. CT.
Position Accountability	Single month level of 5,000 contracts and all months level of 5,000 contracts.
Reportable Position Level	25 contracts
Block Transactions	Not eligible
Exchange-for-Related-Physicals (“EFRP”)	Allowed
CME Trade Matching Algorithm	First In, First Out (“FIFO”)

## **Appendix B**

### **Chapter 261B**

#### **3-Month Euro/U.S. Dollar (EUR/USD) VolContracts™ (Euro 3-Month VolContracts™)<sup>1</sup> Futures**

##### **261B00. SCOPE OF CHAPTER**

This chapter is limited in application to 3-Month Euro/U.S. Dollar (EUR/USD) VolContracts™ (Euro 3-Month VolContracts) futures. In addition to this chapter, Euro 3-Month VolContracts shall be subject to the general rules and regulations of the Exchange insofar as applicable.

For purposes of this chapter, unless otherwise specified, times referred to herein shall refer to and indicate Chicago time.

##### **261B01. TRADING SPECIFICATIONS**

###### **261B01.A. Trading Schedule**

Futures contracts shall be scheduled for trading and delivery during such hours and in such months as may be determined by the Exchange.

###### **261B01.B. Trading Unit**

The unit of trading shall be \$1,000.00 times the Euro 3-Month Reference Value.

###### **261B01.C. Price Increments**

Minimum price fluctuations shall be in multiples of 0.01 of a Euro 3-Month Reference Value point, equivalent to \$10.00 per contract (= \$1,000.00 x 0.01).

###### **261B01.D. 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.

###### **261B01.E. [Reserved]**

###### **261B01.F. [Reserved]**

###### **261B01.G. Termination of Trading**

Futures trading shall terminate at 2:00 p.m. on the second Friday immediately preceding the third Wednesday of the contract month. If this date for termination is a bank holiday in Chicago or New York City, then futures trading shall terminate on the next preceding Business Day common to Chicago and New York City banks and the Exchange.

###### **261B01.H. [Reserved]**

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<sup>1</sup> VolContract™ is a trademark of The Volatility Exchange Corporation; the instruments and trademarks are licensed for use by CME Group.

## Appendix B (continued)

### **261B02. SETTLEMENT PROCEDURES**

#### **261B02.A. Cash Settlement**

Euro 3-Month VolContracts shall be settled in cash to a value of \$1,000 times the Euro 3-Month Reference Value.

#### **261B02.B. Euro 3-Month Reference Value Calculation**

The Euro 3-Month Reference Value (RV) is calculated as the annualized standard deviation of log returns of daily futures settlement prices as follows.

$$RV = 100 \cdot \sqrt{\left(\frac{252}{N}\right) \sum_{t=1}^N \left(\ln \frac{P_t}{P_{t-1}}\right)^2}$$

Where  $P_t$  is the daily settlement price for the CME Euro/U.S. Dollar (EUR/USD) futures contract in the contract month corresponding to the contract month for the Euro 3-Month VolContract, on day  $t$ .  $P_{t-1}$  is the daily settlement price for the CME Euro/U.S. Dollar (EUR/USD) futures contract in the contract month corresponding to the contract month for the Euro 3-Month VolContract, on the Business Day immediately prior to day  $t$ .  $N$  is number of Business Days in quarterly calculation period.

The quarterly calculation period commences on the first Business Day immediately subsequent to the second Friday immediately preceding the third Wednesday of the third calendar month preceding named contract month. The quarterly calculation period concludes on the day on which trading is terminated. Days where futures settlement prices are unavailable do not contribute to calculation.

The result is multiplied by 100. Thus, a value of 20.00% (0.20) is expressed as 20.00; a value of 10.00% (0.10) is expressed as 10.00.

### **261B03. [RESERVED]**

(End Chapter 261B)



## Appendix C

### 1-Month Euro/US Dollar (“EUR/USD”) Realized Volatility Futures

<b>Description</b>	A cash-settled futures contract on the 1-month realized volatility of the CME Euro/US Dollar futures contract that calls for the physical delivery of 125,000 Euros for US dollars.
<b>Product Code</b>	16E
<b>Rulebook Chapter</b>	Chapter 261C
<b>Contract Size</b>	\$1,000 times the Euro 1-Month Reference Value, e.g., \$20,000.00 (= \$1,000 x 20.00).
<b>Contract Months</b>	3 contract expirations in the January, February, March, April, May, June, July, August, September, October, November, and December cycle.
<b>First Listed Months</b>	January 2016, February 2016, and March 2016
<b>Price Basis</b>	Quoted in US dollars.
<b>Minimum Price Fluctuation</b>	0.01 index points (\$10.00)
<b>Daily Settlement</b>	Settlement prices established at 2:00 p.m. Central Time (“CT”).
<b>Last Trading Day</b>	2:00 p.m. CT on the second Friday immediately preceding the third Wednesday of the contract month – <i>i.e.</i> , usually a Friday.
<b>Contract Settlement</b>	Financial settlement
<b>Final Settlement Price</b>	The final settlement price of an expiring contract shall be \$1,000 times the Euro 1-Month Reference Value. The Euro 1-Month Reference Value shall be rounded to the nearest 1/100th of an index point – <i>i.e.</i> , 0.01 or the second decimal price locator in pennies.
<b>Trading Hours</b>	CME Globex: Sundays – Friday, 5:00 p.m. – 4:00 p.m. CT the next day, except on Friday, when Globex closes at 4:00 p.m. CT and reopens Sunday at 5:00 p.m. CT.  CME ClearPort: Sunday – Friday, 5:00 p.m. – 4:00 p.m. CT with a 60-minute break each day beginning at 4:00 p.m. CT.
<b>Position Accountability</b>	Single month level of 5,000 contracts and all months level of 5,000 contracts.
<b>Reportable Position Level</b>	25 contracts
<b>Block Transactions</b>	Not eligible
<b>Exchange-for-Related-Physicals (“EFRP”)</b>	Allowed
<b>CME Trade Matching Algorithm</b>	First In, First Out (“FIFO”)

## **Appendix D**

### **Chapter 261C**

#### **1-Month Euro/U.S. Dollar (EUR/USD) VolContracts™ (Euro 1-Month VolContracts™)<sup>1</sup> Futures**

##### **261C00. SCOPE OF CHAPTER**

This chapter is limited in application to 1-Month Euro/U.S. Dollar (EUR/USD) VolContracts™ (Euro 1-Month VolContracts) futures. In addition to this chapter, Euro 1-Month VolContracts shall be subject to the general rules and regulations of the Exchange insofar as applicable.

For purposes of this chapter, unless otherwise specified, times referred to herein shall refer to and indicate Chicago time.

##### **261C01. TRADING SPECIFICATIONS**

###### **261C01.A. Trading Schedule**

Futures contracts shall be scheduled for trading and delivery during such hours and in such months as may be determined by the Exchange.

###### **261C01.B. Trading Unit**

The unit of trading shall be \$1,000.00 times the Euro 1-Month Reference Value.

###### **261C01.C. Price Increments**

Minimum price fluctuations shall be in multiples of 0.01 of a Euro 1-Month Reference Value point, equivalent to \$10.00 per contract (= \$1,000.00 x 0.01).

###### **261C01.D. 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.

###### **261C01.E. [Reserved]**

###### **261C01.F. [Reserved]**

###### **261C01.G. Termination of Trading**

Futures trading shall terminate at 2:00 p.m. on the second Friday immediately preceding the third Wednesday of the contract month. If this date for termination is a bank holiday in Chicago or New York City, then futures trading shall terminate on the next preceding Business Day common to Chicago and New York City banks and the Exchange.

###### **261C01.H. [Reserved]**

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<sup>1</sup> VolContract™ is a trademark of The Volatility Exchange Corporation; the instruments and trademarks are licensed for use by CME Group.

## Appendix D (continued)

### **261C02. SETTLEMENT PROCEDURES**

#### **261C02.A. Cash Settlement**

Euro 1-Month VolContracts shall be settled in cash to a value of \$1,000 times the Euro 1-Month Reference Value.

#### **261C02.B. Euro 1-Month Reference Value Calculation**

The Euro 1-Month Reference Value (RV) is calculated as the annualized standard deviation of log returns of daily futures settlement prices as follows.

$$RV = 100 \cdot \sqrt{\left(\frac{252}{N}\right) \sum_{t=1}^N \left(\ln \frac{P_t}{P_{t-1}}\right)^2}$$

Where  $P_t$  is the daily settlement price for the CME Euro/U.S. Dollar (EUR/USD) futures contract in the contract month corresponding to the contract month for the Euro 1-Month VolContract, on day  $t$ .  $P_{t-1}$  is the daily settlement price for the CME Euro/U.S. Dollar (EUR/USD) futures contract in the contract month corresponding to the contract month for the Euro 1-Month VolContract, on the Business Day immediately prior to day  $t$ .  $N$  is number of Business Days in monthly calculation period.

The monthly calculation period commences on the first Business Day immediately subsequent to the second Friday immediately preceding the third Wednesday of the first calendar month preceding named contract month. The monthly calculation period concludes on the day on which trading is terminated. Days where futures settlement prices are unavailable do not contribute to calculation.

The result is multiplied by 100. Thus, a value of 20.00% (0.20) is expressed as 20.00; a value of 10.00% (0.10) is expressed as 10.00.

### **261C03. [RESERVED]**

(End Chapter 261C)

## **Appendix E**

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

(Attached under separate cover)

## **Appendix F**

### **1-Month and 3-Month Euro/US Dollar (“EUR/USD”) Realized Volatility Futures**

#### **CME Rule 588.H. Globex Non-Reviewable Trading Ranges**

(Additions are underlined)

<b>Instrument Name</b>	<b>Globex Symbol</b>	<b>Globex Non-Reviewable Ranges (NRR)</b>	<b>NRR: Globex Format</b>	<b>NRR: Ticks</b>
<b><u>3-Month EUR/USD Realized Volatility Futures</u></b>	<u>36E</u>	<u>0.20 index points</u>	<u>20</u>	<u>20</u>
<b><u>1-Month EUR/USD Realized Volatility Futures</u></b>	<u>16E</u>	<u>0.20 index points</u>	<u>20</u>	<u>20</u>

## **Appendix G**

### **Cash Market Overview and Analysis of Deliverable Supply for**

#### **1-Month and 3-Month Euro/US Dollar (“EUR/USD”) Realized Volatility Futures**

##### **Introduction**

Chicago Mercantile Exchange Inc. (“CME” or “Exchange”) will launch a 1-Month and 3-Month Euro/US Dollar (“EUR/USD”) Realized Volatility futures contracts (the “Contracts”) for trading on CME Globex and for submission for clearing through CME ClearPort effective Sunday, December 20, 2015 for trade date **Monday, December 21, 2015**.

##### **Recommendation**

CME recommends the following position accountability levels for 1-Month and 3-Month EUR/USD Realized Volatility futures at contract launch:

- Single month position accountability of **5,000** contracts.
- All months position accountability of **5,000** contracts.

##### **Analysis**

The Contracts will offer direct trading of EUR/USD exchange rate volatility. The Contracts will allow participants to buy or sell EUR/USD exchange rate volatility without the complexity of managing CME Euro/US Dollar standard options positions, and without the necessity of forming a strong directional view on the price movement of the underlying CME standard-sized Euro/US Dollar futures contract. The Contracts will be cash-settled to one-month and three-month historical or “realized” volatilities, respectively, calculated by reference to the daily price movements of the Exchange’s underlying standard-sized EUR/USD futures contract. The realized volatility calculations for the Contracts are based on simple standard deviation formulae as shown in proposed CME Rule 261B02.B. in Appendix B for the 3-Month contract and in proposed CME Rule 261C02.B. in Appendix D for the 1-Month contract.

Since one-month and three-month realized volatilities in the EUR/USD exchange rate does not physically exist, there are no actual physical underlying cash markets for the Contracts like there are for other CME foreign exchange futures contracts. Subsequently, CME has decided to use the Euro currency that underlies the Exchange’s extant standard-sized EUR/USD futures contract as a market proxy for the physical underlying cash markets for both EUR/USD Realized Volatility futures. The Exchange believes this assumption is reasonable in the absence of actual physical underlying cash markets since the one-month and three-month realized volatilities of the extant standard-sized EUR/USD futures contract are the actual underlying instruments of the Contracts, respectively.

As a basis for providing a uniform and methodical analysis for recommending position accountability levels for the Contracts, CME has adopted three metrics to frame its analysis quantitatively.

First, CME defines the deliverable grades for the Contracts as equal to the M1 money supply of the Eurozone. In general terms, Eurozone M1 money supply consists of currency in circulation plus demand deposits, such as checking and savings accounts. Eurozone M1 is the narrowest and most conservative definition of the Eurozone's deliverable currency stock available on a spot market basis. Eurozone M1 data is readily available from the economic database of the European Central Bank (ECB).<sup>1</sup>

Second, CME recommends single month position accountability levels for the Contracts that are equal to or less than one percent of Eurozone M1 money supply, rounded to the nearest 5,000-contract increment. The Exchange believes one percent is a reasonable level since it is well below the 25 percent maximum threshold of estimated deliverable supply that the Commodity Futures Trading Commission ("CFTC") stipulates for determining the speculative spot month limit of a futures contract as codified in Part 150 of the Commodity Exchange Act.

Third, CME recommends all months position accountability levels for the Contracts that are equal to or less than two percent of Eurozone M1 money supply, rounded to the nearest 5,000-contract increment. Again, the Exchange believes two percent is a conservative level as it is substantially below the CFTC's 25 percent maximum threshold for determining the speculative limit of a futures contract.

## **A. 1-Month and 3-Month EUR/USD Realized Volatility Futures**

### **• *Currency Background***

The Euro is the official currency of the Eurozone, which consists of 19 of the 28 member states of the European Union: Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia, and Spain. According to the 2013 Triennial Central Bank Survey conducted by the Bank for International Settlements ("BIS"), the Euro is the second most traded currency in the world behind the US dollar.<sup>2</sup> In April 2013, BIS reported that the Euro had an average daily volume of 1.79 trillion US dollars on a "net-net" basis – *i.e.*, after adjustment for local and cross-border inter-dealer double-counting – for spot, outright forward, foreign exchange swap, currency swap, and foreign exchange option transactions combined.<sup>3</sup> The Euro is also part of the CLS global cash settlement system, an international payment versus payment settlement service that mitigates settlement risk for foreign currency transactions of its settlement members and their customers through central bank accounts.

The Euro is officially used by the institutions of the European Union and four other European countries, as well as unilaterally by two others, and is consequently used daily by some 337 million Europeans as of 2015. Outside of Europe, a number of overseas territories of EU members also use the Euro as their currency. Additionally, 210 million people worldwide as of 2013 use currencies pegged to the Euro.

The Euro is the world's second largest reserve currency. As of August 2014, with more than €995 billion in circulation, the Euro has the highest combined value of banknotes and coins in circulation in the world, having surpassed the U.S. dollar. Based on International Monetary Fund ("IMF") estimates of 2008 gross domestic product and purchasing power parity among the various currencies, the Eurozone is the second largest economy in the world. The name Euro was officially adopted on December 16, 1995. The Euro was introduced to world financial markets as an accounting currency on January 1, 1999, replacing the former European Currency Unit ("ECU") at a ratio of 1:1 (US\$1.17). Physical Euro coins and banknotes entered into circulation on January 1, 2002, making the Euro the day-to-day operating currency of its original members. While the Euro dropped subsequently to US\$0.82 within two years of its introduction

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<sup>1</sup> See [http://sdw.ecb.europa.eu/browseSelection.do?DATASET=0&BS\\_ITEM=M10&DATA\\_TYPE=1&node=bbn3478](http://sdw.ecb.europa.eu/browseSelection.do?DATASET=0&BS_ITEM=M10&DATA_TYPE=1&node=bbn3478).

<sup>2</sup> See *Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity in 2013*, Bank for International Settlements, September 2013, table 2, page 10, <http://www.bis.org/publ/rpfx13.htm>.

<sup>3</sup> *Ibid*, table 5, page 13.

(October 26, 2000), it has traded above parity against the U.S. dollar since the end of 2002, peaking at US\$1.60 on July 18, 2008. Since late 2009, the Euro has been immersed in the European sovereign-debt crisis that led to the creation of the European Financial Stability Facility (“EFSF”) as well as other reforms aimed at stabilizing the currency. In July 2012, the Euro fell below US\$1.21 for the first time in two years, following concerns raised over Greek debt and Spain’s troubled banking sector. As of December 2015, the EUR/USD exchange rate stands at US\$1.09.

The Euro is managed and administered by the Frankfurt-based European Central Bank (“ECB”) and the Eurosystem (composed of the central banks of the Eurozone countries). As an independent central bank, the ECB has sole authority to set monetary policy in the Eurozone. The Eurosystem participates in the printing, minting, and distribution of notes and coins in all member states, and the operation of the Eurozone payment systems.

- **Price Reporting Agency**

Following contract expiration on the last trading day, CME Clearing will liquidate all open positions in the Contracts by cash settlement at a final settlement price equal to \$1,000 times the Euro 3-Month Reference Value in the case of the 3-Month contract as specified in proposed CME Rule 261B02.B. in Appendix B and at a final settlement price equal to \$1,000 times the Euro 1-Month Reference Value in the case of the 1-Month contract as specified in proposed CME Rule 261C02.B. in Appendix D. CME Group’s Research Department will be the price reporting agency (“PRA”) and thus will be responsible for calculating and distributing the final settlement prices of expiring contracts in the Contracts following contract expiration on the last trading day. Following the determination of the final settlement prices of expiring contracts, CME Clearing will conduct final pays and collects on the last trading day following the contract expiration.

The expiring contracts for the Contracts will be calculated as the annualized standard deviations of the lognormal returns of the daily futures settlement prices of the corresponding underlying CME EUR/USD futures contract as follows.

$$RV = 100 \cdot \sqrt{\left(\frac{252}{N}\right) \sum_{t=1}^N \left(\ln \frac{P_t}{P_{t-1}}\right)^2}$$

Where  $P_t$  is the daily settlement price for the corresponding underlying CME EUR/USD futures contract in the contract month corresponding to the contract month for the expiring contract in the Contracts on day  $t$ ,  $P_{t-1}$  is the daily settlement price for the corresponding underlying CME EUR/USD futures in the contract month corresponding to the contract month for the expiring contract in the Contracts on the business day immediately prior to day  $t$ , and  $N$  is the number of business days in either the monthly calculation period for the 1-Month contract or the quarterly calculation period for the 3-Month contract.

The monthly calculation period for the 1-Month contract commences on the first business day immediately subsequent to the second Friday immediately preceding the third Wednesday of the first calendar month preceding the named contract month. The monthly calculation period concludes on the day on which trading is terminated. Days where futures settlement prices are unavailable do not contribute to the calculation of the final settlement price of the 1-Month contract.

The quarterly calculation period for the 3-Month contract commences on the first business day immediately subsequent to the second Friday immediately preceding the third Wednesday of the third calendar month preceding the named contract month. The quarterly calculation period concludes on the day on which trading is terminated. Days where futures settlement prices are unavailable do not contribute to the calculation of the final settlement price of the 3-Month contract.



The final result is multiplied by 100. Thus, a value of 20.00 percent – *i.e.*, 0.20 – is expressed as 20.00 and a value of 10.00% – *i.e.*, 0.10 – is expressed as 10.00.

- ***Cash Market Analysis***

Exhibit 1 summarizes Eurozone M1 money supply on a monthly basis between October 2012 and September 2015. During this three-year period, Eurozone M1 increased by 27.1% to 6.5 trillion Euros.

- ***Single Month Position Accountability Level***

CME proposes single month position accountability levels of 5,000 contracts for the Contracts. The notional values of these limits averaged 0.01% of Eurozone M1 between October 2012 and September 2015, which is significantly below the one percent threshold of Eurozone M1 that the Exchange would normally use as a metric for determining single month position accountability levels for the Contracts.

- ***All Months Position Accountability Level***

CME proposes all months position accountability levels of 5,000 contracts for the Contracts. The notional values of these limits averaged 0.01% of Eurozone M1 between October 2012 and September 2015, which is decidedly below the two percent threshold of Eurozone M1 that the Exchange would typically use as a metric for determining the all months position accountability levels for the Contracts.

## Exhibit 1: Position Accountability Analysis for 1-Month and 3-Month Euro/US Dollar (“EUR/USD”) Realized Volatility Futures Contracts

	Euro M1* Money Supply (EUR)	Contract Size (EUR)	Contract Position Accountability Level	Value of Accountability Level (EUR)	Single Month			All Months				
					% of M1	1.0%	Rounded to Nearest 5,000 Contracts	Contract Position Accountability Level	Value of Accountability Level (EUR)	% of M1	2.0%	Rounded to Nearest 5,000 Contracts
1.) October 2012	5,074,663,000,000	125,000	5,000	625,000,000	0.01%	405,973	405,000	5,000	625,000,000	0.01%	811,946	810,000
2.) November 2012	5,101,071,000,000	125,000	5,000	625,000,000	0.01%	408,086	410,000	5,000	625,000,000	0.01%	816,171	815,000
3.) December 2012	5,090,361,000,000	125,000	5,000	625,000,000	0.01%	407,229	405,000	5,000	625,000,000	0.01%	814,458	815,000
4.) January 2013	5,103,164,000,000	125,000	5,000	625,000,000	0.01%	408,253	410,000	5,000	625,000,000	0.01%	816,506	815,000
5.) February 2013	5,142,286,000,000	125,000	5,000	625,000,000	0.01%	411,383	410,000	5,000	625,000,000	0.01%	822,766	825,000
6.) March 2013	5,180,615,000,000	125,000	5,000	625,000,000	0.01%	414,449	415,000	5,000	625,000,000	0.01%	828,898	830,000
7.) April 2013	5,211,706,000,000	125,000	5,000	625,000,000	0.01%	416,936	415,000	5,000	625,000,000	0.01%	833,873	835,000
8.) May 2013	5,250,233,000,000	125,000	5,000	625,000,000	0.01%	420,019	420,000	5,000	625,000,000	0.01%	840,037	840,000
9.) June 2013	5,249,736,000,000	125,000	5,000	625,000,000	0.01%	419,979	420,000	5,000	625,000,000	0.01%	839,958	840,000
10.) July 2013	5,283,999,000,000	125,000	5,000	625,000,000	0.01%	422,720	425,000	5,000	625,000,000	0.01%	845,440	845,000
11.) August 2013	5,317,598,000,000	125,000	5,000	625,000,000	0.01%	425,408	425,000	5,000	625,000,000	0.01%	850,816	850,000
12.) September 2013	5,327,343,000,000	125,000	5,000	625,000,000	0.01%	426,187	425,000	5,000	625,000,000	0.01%	852,375	850,000
13.) October 2013	5,373,653,000,000	125,000	5,000	625,000,000	0.01%	429,892	430,000	5,000	625,000,000	0.01%	859,784	860,000
14.) November 2013	5,401,404,000,000	125,000	5,000	625,000,000	0.01%	432,112	430,000	5,000	625,000,000	0.01%	864,225	865,000
15.) December 2013	5,372,936,000,000	125,000	5,000	625,000,000	0.01%	429,835	430,000	5,000	625,000,000	0.01%	859,670	860,000
16.) January 2014	5,422,338,000,000	125,000	5,000	625,000,000	0.01%	433,787	435,000	5,000	625,000,000	0.01%	867,574	870,000
17.) February 2014	5,458,659,000,000	125,000	5,000	625,000,000	0.01%	436,693	435,000	5,000	625,000,000	0.01%	873,385	875,000
18.) March 2014	5,468,994,000,000	125,000	5,000	625,000,000	0.01%	437,520	440,000	5,000	625,000,000	0.01%	875,039	875,000
19.) April 2014	5,485,103,000,000	125,000	5,000	625,000,000	0.01%	438,808	440,000	5,000	625,000,000	0.01%	877,616	880,000
20.) May 2014	5,518,995,000,000	125,000	5,000	625,000,000	0.01%	441,520	440,000	5,000	625,000,000	0.01%	883,039	885,000
21.) June 2014	5,540,262,000,000	125,000	5,000	625,000,000	0.01%	443,221	445,000	5,000	625,000,000	0.01%	886,442	885,000
22.) July 2014	5,586,887,000,000	125,000	5,000	625,000,000	0.01%	446,951	445,000	5,000	625,000,000	0.01%	893,902	895,000
23.) August 2014	5,637,505,000,000	125,000	5,000	625,000,000	0.01%	451,000	450,000	5,000	625,000,000	0.01%	902,001	900,000
24.) September 2014	5,674,254,000,000	125,000	5,000	625,000,000	0.01%	453,940	455,000	5,000	625,000,000	0.01%	907,881	910,000
25.) October 2014	5,724,335,000,000	125,000	5,000	625,000,000	0.01%	457,947	460,000	5,000	625,000,000	0.01%	915,894	915,000
26.) November 2014	5,795,221,000,000	125,000	5,000	625,000,000	0.01%	463,618	465,000	5,000	625,000,000	0.01%	927,235	925,000
27.) December 2014	5,898,480,000,000	125,000	5,000	625,000,000	0.01%	471,878	470,000	5,000	625,000,000	0.01%	943,757	945,000
28.) January 2015	6,025,591,000,000	125,000	5,000	625,000,000	0.01%	482,047	480,000	5,000	625,000,000	0.01%	964,095	965,000
29.) February 2015	6,083,189,000,000	125,000	5,000	625,000,000	0.01%	486,655	485,000	5,000	625,000,000	0.01%	973,310	975,000
30.) March 2015	6,152,848,000,000	125,000	5,000	625,000,000	0.01%	492,228	490,000	5,000	625,000,000	0.01%	984,456	985,000
31.) April 2015	6,193,205,000,000	125,000	5,000	625,000,000	0.01%	495,456	495,000	5,000	625,000,000	0.01%	990,913	990,000
32.) May 2015	6,271,646,000,000	125,000	5,000	625,000,000	0.01%	501,732	500,000	5,000	625,000,000	0.01%	1,003,463	1,005,000
33.) June 2015	6,318,167,000,000	125,000	5,000	625,000,000	0.01%	505,453	505,000	5,000	625,000,000	0.01%	1,010,907	1,010,000
34.) July 2015	6,401,980,000,000	125,000	5,000	625,000,000	0.01%	512,158	510,000	5,000	625,000,000	0.01%	1,024,317	1,025,000
35.) August 2015	6,407,713,000,000	125,000	5,000	625,000,000	0.01%	512,617	515,000	5,000	625,000,000	0.01%	1,025,234	1,025,000
36.) <b>September 2015</b>	<b>6,450,920,000,000</b>	<b>125,000</b>	<b>5,000</b>	<b>625,000,000</b>	<b>0.01%</b>	<b>516,074</b>	<b>515,000</b>	<b>5,000</b>	<b>625,000,000</b>	<b>0.01%</b>	<b>1,032,147</b>	<b>1,030,000</b>
<b>Over Last 36 Months</b>												
Average:	5,611,029,444,444				0.01%					0.01%		
Maximum:	6,450,920,000,000				0.01%					0.01%		
Minimum:	5,074,663,000,000				0.01%					0.01%		
Growth Rate:	27.1%											

Source: CME Group and European Central Bank.

\*M1 money supply is currency in circulation plus demand deposits.

## Appendix H

### 1-Month and 3-Month Euro/US Dollar (“EUR/USD”) Realized Volatility Futures Contracts

#### Fee Schedule\*

The Exchange will implement the following fees for the Contracts commencing in January 2017:

Foreign Exchange Products Futures & Options	CLEARING FEE	CME GLOBEX FEE	EFP/BLOCK SURCHARGE
	FX Futures & Options	FX Futures	FX Futures & Options
	GLOBEX   PIT	GLOBEX TRADE   SPREAD	EFP/EFR/BLOCK
Individual Equity Members/Clearing Members/Rule 106.J Equity Member Firms/Rule 106.I Members/Rule 106.S Member Approved Funds	\$0.07	\$0.25	\$1.00
Rule 106.D Lessees / Rule 106.F Employees	\$0.27	\$0.25	\$1.00
Rule 106.R Electronic Corporate Member <b>(Reduced rates for Globex Transactions Only)</b>	\$0.34	\$0.10	\$1.00
Rule 106.H and 106.N Firms	\$0.34   \$0.45	\$0.10	\$1.00
International Incentive Program (IIP) Participants International Volume Incentive Program (IVIP) Participants <b>(Reduced rates for Globex Transactions Only)</b>	\$0.44	\$0.10	\$1.00
Central Bank Incentive Program (CBIP) Participants Emerging Markets Bank Incentive Program (EMBIP) Participants Latin American Fund Manager Incentive Program (FMIP) Participants Latin American Proprietary Trading Incentive Program (LAPTIP) Participants <b>(Reduced rates for Globex Transactions Only)</b>	\$0.44	\$0.56	\$1.00
Latin American Commercial Incentive Program (LACIP) Participants <b>(Reduced rates for Agricultural and FX Products Only)</b>	\$0.44	\$0.56	\$1.00
CTA/Hedge Fund Incentive Program Participants <b>(Reduced rates for FX Products Only)</b>	\$1.00	\$0.20	\$1.00
CBOE Members <b>(Reduced Clearing Fee rates for S&amp;P Products Only)</b>	\$0.60	\$1.00   \$0.75	\$1.00
Members Trading Outside of Division <b>(Reduced Globex Fee rates during ETH only)</b>	\$0.60	\$0.25	\$1.00
Customers of Member Firms (Non-Members)	\$0.60	\$1.00   \$0.75	\$1.00

\*These fees will be waived until January 2017.